April 5, 1960 D. W. LARSON 2,931,373

SHELTER

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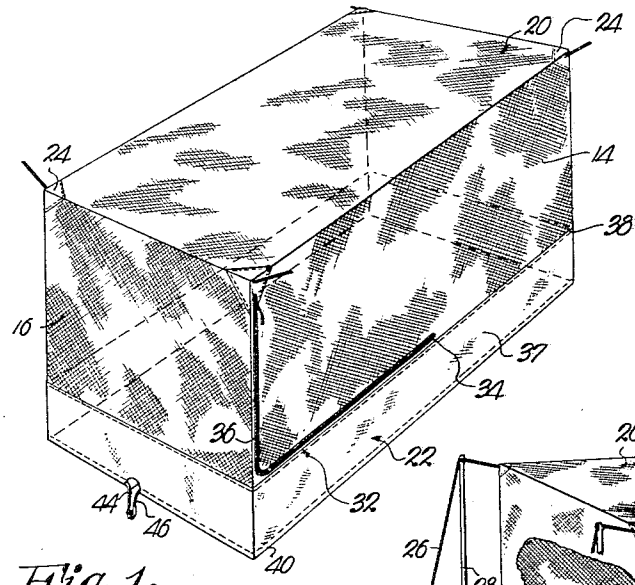


Fig. 1.

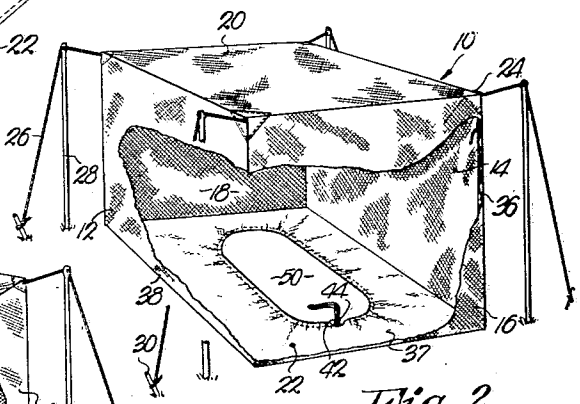


Fig. 2.

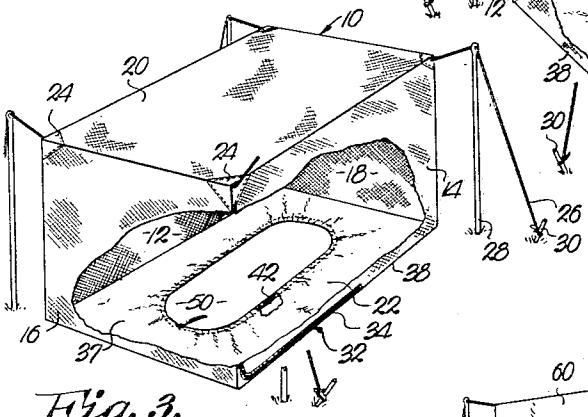


Fig. 3.

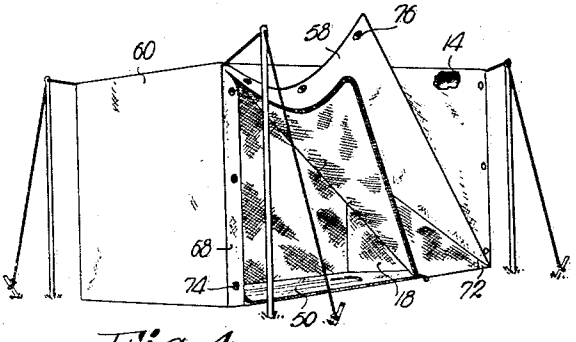


Fig. 4.

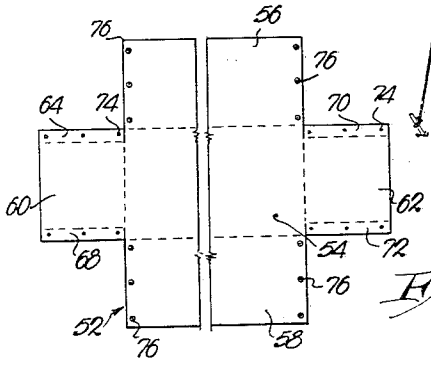


Fig. 5.

INVENTOR.
Dean W. Larson

BY

ATTORNEY.

United States Patent Office

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SHELTER

Dean W. Larson, Concordia, Kans.

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1 Claim. (Cl. 135—1)

This invention relates to shelters and more particularly to a lightweight, portable, collapsible enclosure for use in conjunction with a sleeping bag for camping.

One of the most important objects of this invention is the provision of a shelter of the aforementioned character and which is so constructed as to be usable with a conventional sleeping bag of any size to protect the occupant from bugs and insects as well as from the elements during inclement weather. The shelter may also be used in conjunction with cots, bunks or beds of varying sizes and can be used either indoors or outdoors.

Still another object of the invention is to provide a shelter with a slide fastener so disposed as to present a swingable entrance flap for access to the shelter and yet fully retain the insect-proof properties of the shelter when the flap is closed.

In the drawing:

Figure 1 is a perspective view of the shelter made in accordance with the invention and showing the same before it is placed in use.

Fig. 2 is a perspective view thereof in condition ready for use, a portion being broken away for clarity.

Fig. 3 is a perspective view of a modified form of the sheler when in use, a portion being broken way for clarity.

Fig. 4 is a perspective view of the shelter when in use showing the cover thereon and the entrance flap raised; and

Fig. 5 is a condensed plan view of the cover for the shelter.

The shelter, as shown in the drawing, is in the form of a hollow polygonal body, broadly designated by the numeral 10. When the shelter is in use, as shown in Figs. 2, 3 and 4, said body 10 has a pair of opposed side walls 12 and 14; a pair of opposed end walls 16 and 18, a top 20 and a bottom 22. All of said walls 12—18 and the top 20 and bottom 22 are interconnected along the edges thereof to form a composite polygonal body 10 in the nature of a box-like enclosure.

At the juncture of side walls 12 and 14, end walls 16 and 18 and top 20 there is provided at each normally upper corner respectively, a patch 24 of heavy material. Each of said patches 24 covers a triangular area of the proximal side, end and top and is affixed thereto by stitching or other suitable means. Said patches 24 serve to reinforce the normally upper four corners of body 10 and each receives a suspending means such as a rope 26. Each patch 24 receives one end of its corresponding rope 26, the end thereof being passed through the patch 24 and suitably retained in engagement with the inner surface of the body 10 covered by said patch. The opposite end of each rope 26 may be passed over a pole 28 and secured to the ground by suitable means such as a stake 30 or may be otherwise positioned in such a manner as to properly suspend body 10, as shown in Figs. 2, 3 and 4.

Side walls 12 and 14, end walls 16 and 18 and top 20 are preferably made of mosquito netting, cheesecloth or other appropriate insect impervious material,

and may be fire proofed if so desired. Side wall 14 is provided with a slide fastener 32, the fastener being substantially L-shaped and having a horizontal leg 34 and a vertical leg 36. Horizontal leg 36 is disposed along the lower edge of side wall 14 and serves to interconnect said wall 14 with bottom 22. Vertical leg 36 is disposed along substantially one entire end of side wall 14 at its juncture with wall 16 and serves to interconnect these walls.

Slide fastener 32 is a single continuous element and is so designed that its conventional slide block may be operated either from within or without body 10. When fastener 32 is opened, a portion of side wall 14 will fold upwardly along a line extending between the ends of fastener 32, thus presenting an opening for entering or leaving the shelter. It is to be noted that since the portion of side wall 14 forming the entrance flap swings upwardly, as above set forth, it does not, when in use, come in contact with the supporting surface to thereby become soiled.

Bottom 22 of body 10 consists of a continuous band 37 of water-proof material secured continuously at one of its longitudinal edges to the bottom edge of walls 12—18 by stitching or the like along a line 38. The opposite marginal edge of the band 37 is folded over itself and secured by stitching to provide a tube 40 for the reception of adjusting means 42. Tube 40 is continuous along the marginal edge of the band 37 with the exception of a notch 44 provided in tube 40 to allow access to the adjusting means 42.

In the form shown in Figs. 1 and 2, adjusting means 42 is in the nature of a drawstring that is carried within tube 40 with the ends 46 thereof emerging through notch 44. Thus, when shelter body 10 is placed in use, the band 37 forming bottom 22 is folded inwardly with respect to the body 10 along line 38 and drawstring 42 adjusted to pull the bottom 22 tight or allow the same to expand as may be desired. Through the use of said drawstring 42 the bottom 22 and body 10 may be adapted to receive a sleeping bag of any size and yet maintain walls 12—18 in close contact with the edges of the sleeping bag to provide a snug shelter. If it is not desired to have the wall 12—18 fit snugly about the edges of the sleeping bag, drawstring 42 may be loosened to allow expansion of bottom 22 and the walls 12—18 may be moved away from the edges of the sleeping bag and thus provide additional room within the shelter.

In the modified form of the invention as shown in Fig. 3, adjusting means 42 is in the nature of a strip of elastic material confined within tube 40 throughout the entire length thereof. The provision of elastic material for adjusting means 42 makes the bottom 22 self conforming in that it will readily adapt itself to any size of sleeping bag and due to the elastic nature of the adjusting means 42 will maintain the lower portions of walls 12—18 in close engagement with the edges of the bag. Due to the elasticity of the adjusting means 42 any size of sleeping bag may be accommodated by body 10 merely by placing the same within the shelter and upon bottom 22 and pushing downwardly along the edges of the bag whereby to cause the lower portions of walls 12—18 to move outwardly. Inasmuch as bottom 22 is formed so as to provide an opening 50, such outward movement of walls 12—18 will merely tend to enlarge opening 50 by reason of the elasticity of adjusting means 42 within bottom 22 and the over-all shape and configuration of body 10 will not be substantially altered. Thus adjusting means 42 will always hold the walls 12—18 tightly against the sleeping bag, cot or bed that is enclosed thereby and said walls will not be moved by a person inside of the shelter by inadvertently knocking or moving thereagainst.

Shelter **10** is preferably of an initial size to accommodate the smallest of sleeping bags in order that the size of the shelter may not normally have to be reduced to a point where walls **12—18** are brought in contact with the ground by reason of constriction of bottom **22**. Inasmuch as a majority of sleeping bags are no smaller than a standard size, they may be easily placed within the shelter and the bottom **22** adjusted to the size of the bag by means **42** to provide the desired fit. If the bag used is of a larger than standard size, the shelter may be expanded to accommodate the bag merely by expanding the size of opening **50** as above explained. Such expansion would still leave slide fastener **32** in a position to be used by the occupant of the shelter.

A cover **52** is provided for body **10** for the purpose of protecting the user of the shelter from the elements. As shown in Fig. 5, this cover is substantially cross-shaped, having a central portion **54**, side panels **56** and **58** and end panels **60** and **62**.

Central portion **54** is of the same dimensions as top **20** and when cover **52** is placed over body **10**, said portion **54** registers with and overlies top **20**. When so positioned panels **56**, **58**, **60** and **62** descend over and cover side and end walls **12**, **14**, **16** and **18** respectively, thus affording complete protection against the elements to the user of the shelter. Cover **52** is secured tightly about body **10** by flaps **64**, **68**, **70** and **72** respectively, each of which is provided with a number of male snap fastener elements **74**. When cover **52** is in place over body **10**, each flap **64**, **68**, **70** and **72** is turned about a corner of the body **10** to place the flaps in facing engagement with side panels **56** and **58** at the vertical marginal edges thereof.

Side panels **56** and **58** are, in turn, provided with an equal number of corresponding female fastener elements **76** which engage elements **74** whereby to secure the cover **52** tightly about body **10**. As shown in Fig. 4, the fasteners **74** and **76** may be disengaged along one corner of the body **10** and the cover **52** folded upwardly to obtain access to slide fastener **32** which may be operated to gain entrance to the shelter. Conversely, slide fastener **32** may be operated from the inside of the shelter and fasteners **74** and **76** released in order to leave the shelter.

Cover **52** may thus be employed in combination with the shelter in inclement weather to protect the occupant

of the shelter or his property therein from the elements. To satisfactorily perform this function it is to be preferred that cover **52** be formed of canvas, plastic or other suitable lightweight, water-proof material.

Having thus described the invention, what is claimed as new and desired to be secured by Letters Patent is:

A shelter comprising a pair of planar, opposed side walls, a pair of planar, opposed end walls, a planar top member and a planar bottom member, all interconnected to form a unitary, box-like body, presenting a plurality of corners at the periphery of the top member; means for suspending said body from said corners, the body being adapted to confine a sleeping bag therein when in the operative condition and with the bag superimposed upon said bottom member; and a single, L-shaped slide fastener having a horizontal leg and a vertical leg and connecting one side wall with one end wall at their proximal edges and said one side wall with said bottom member whereby to set off an entrance flap, swingable upwardly at an angle along a line joining the ends of said L-shaped fastener toward the top when the slide fastener is open, said pair of planar, opposed side walls, said pair of planar, opposed end walls and said top member being provided with a snug cover of water-proof material, said cover having a central portion of substantially the same area as said top member, a pair of opposed side panels each of substantially the same area as the said side walls respectively, and a pair of opposed end panels each of substantially the same area as said end walls respectively, and interconnecting fasteners at the meeting edges of each of said side panels and the end panels.

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