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COLLAPSIBLE INFLATABLE TENT

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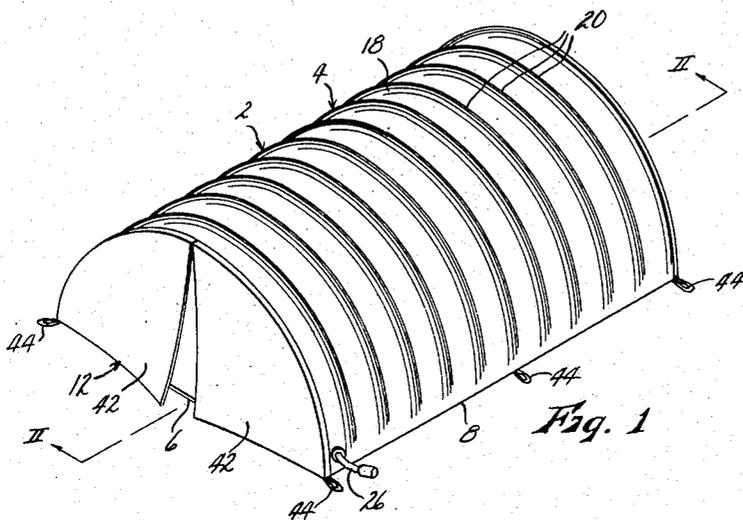


Fig. 1

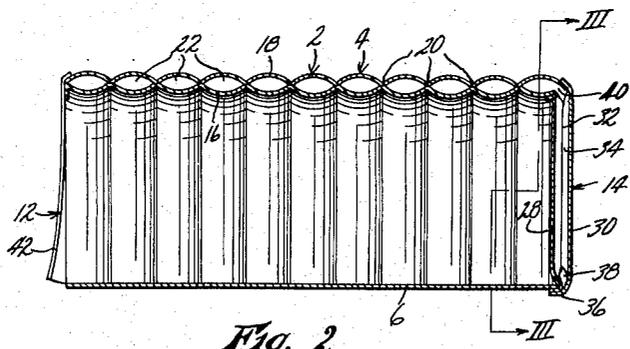


Fig. 2

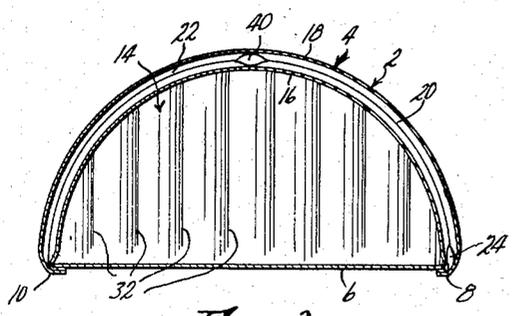


Fig. 3

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**COLLAPSIBLE INFLATABLE TENT**

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1 Claim. (Cl. 135—1)

This invention relates to new and useful improvements in small shelters or enclosures which for convenience will be designated tents, although it will be apparent that the inventive concepts involved may be applied with equal facility to small shelters intended for a wide variety of uses.

The principal object of the present invention is the provision of a tent of the class described which is constructed entirely of a pliable sheet material, whereby it may be folded and packed into a very small space for convenience of storage and transportation, but which when inflated with compressed air or other gas will assume its normal shape and size automatically, without need of poles, framework, or other supporting structure.

Another important object is the provision of a collapsible inflatable tent of the class described wherein certain of the walls thereof are double, comprising inner and outer layers, said layers being joined together to divide the space therebetween into a plurality of interconnected compartments or chambers, said compartments being so arranged as to impart a substantial degree of structural strength to the tent.

Other objects are extreme simplicity and economy of construction, efficiency and dependability of operation, and adaptability for a wide variety of uses.

With these objects in view, as well as other objects which will appear in the course of the specification, reference will be had to the drawing, wherein:

Fig. 1 is a perspective view of a collapsible inflatable tent embodying the present invention,

Fig. 2 is a sectional view taken on line II—II of Fig. 1, and

Fig. 3 is a sectional view taken on line III—III of Fig. 2.

Like reference numerals apply to similar parts throughout the several views, and the numeral 2 applies generally to the tent, which comprises a generally semi-cylindrical wall 4 forming the top and sides of the tent, floor 6 which is rectangular and joined along a pair of opposite parallel edges at 8 and 10 to the respective longitudinal edges of wall 4, and end walls 12 and 14.

Wall 4 is formed of a pliable sheet material which is impermeable to air, such as plastic. As best shown in Figs. 2 and 3, said wall is of double thickness, comprising an inner layer 16 and an outer layer 18. Said layers are joined together along lines 20, as by cementing, to divide the space between said layers into a series of elongated air compartments 22, said compartments extending circumferentially of the curvature of the wall. It will be noted in Figs. 1 and 3 that the cement lines 20 extend to edge 10 of the wall, but terminate in spaced relation from edge 8. This forms an air passage 24 (see Fig. 3) which interconnects all of compartments 22. Thus all of the compartments 22 will be inflated when air under pressure is admitted to the wall through a single fitting 26, which may be of any suitable type. It will also be noted in Fig. 3 that the layers 16 and 18

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of the wall are secured together before being fastened to floor 6, and that thence the air seal does not depend in any way on the nature of said floor, which may be sewed, cemented, or otherwise secured to wall 4. Floor 6 may thus be formed of a porous but tough material such as heavy canvas, which is much better adapted than plastic sheet to withstand the snags and sharp objects which are commonly encountered on the ground.

Likewise rear end wall 14 is formed of pliable inner and outer layers 28 and 30 cemented together along lines 32 to form a plurality of vertically extending air compartments 34 therebetween. Said layers are cemented together at their lower edges, and then joined to an edge of floor 6 at 36. Lines 32 terminate in spaced relation above floor 6, thereby forming a passage 38 (see Fig. 2) interconnecting all of compartments 34. Wall layers 28 and 30 are cemented at their upper edges respectively to the inner and outer layers 16 and 18 of wall 4. Walls 16 and 18 are left unconnected for a short distance, whereby to form a passage 40 interconnecting the rearmost compartment 22 of wall 4 with one of compartments 34 of rear wall 14. Hence both wall 4 and wall 14 may be filled from fitting 26. Very small tents may be inflated by mouth. For larger tents or structures, or whenever desired, compressed air cartridges or other sources of compressed air may be utilized.

Front end wall 12 may be formed of any suitable pliable material, and is of a single thickness. It is secured along its upper edge to the forward edge of wall 4. Also, it is free along its lower edge and slit down the middle to form a pair of flaps 42 providing easy ingress and egress to the interior. Said flaps could be provided with any desired fasteners, not shown. Also, a plurality of pliable loops 44 could be secured to the lower edge of the tent for receiving stakes for holding the tent firmly in place on the ground.

Thus it is apparent that a collapsible inflatable tent having several advantages has been produced. When deflated, it may be folded to a very small size, and is very light, so as to be easily portable. The semi-cylindrical shape of wall 4, together with the circumferential disposition of air chambers 22 therein, impart a maximum structural strength, which is further improved by the vertical air compartments in end wall 14. Floor 6 offers good protection against ground moisture, and also resists any tendency of the lower edges of wall 4 to spread apart. No poles, framework or other rigid supports are required.

While I have shown and described a specific embodiment of my invention, it will be apparent that many minor changes of structure and function could be made without departing from the spirit of the invention as defined by the scope of the appended claim.

What I claim as new and desire to protect by Letters Patent is:

A collapsible inflatable enclosure having the top and sides thereof formed by a substantially semi-cylindrical wall of pliable, air impermeable material, said wall being of double thickness having a pair of spaced layers, said layers being joined together along their edges except for an opening at one end thereof and being joined together along lines whereby to form a plurality of elongated, interconnected air compartments, said compartments extending generally circumferentially of the curvature of said wall and being adapted to receive air under pressure, a floor comprising a pliable sheet member having a pair of opposite parallel edges thereof secured respectively to the longitudinal edges of said semi-cylindrical wall, and a vertical end wall secured around its edges to said floor and to a curved end of said semi-cylindrical wall,

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said end wall being formed of pliable, air impermeable material and being of double thickness, comprising a pair of spaced layers, said layers being joined respectively to the distal faces of the layers of said semi-cylindrical wall along the edge thereof whereby the opening between the edges of said semi-cylindrical wall layers communicates with the space between said end wall layers, said end wall layers being also joined together along lines to form a plurality of elongated, vertically extending, interconnected air compartments.

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