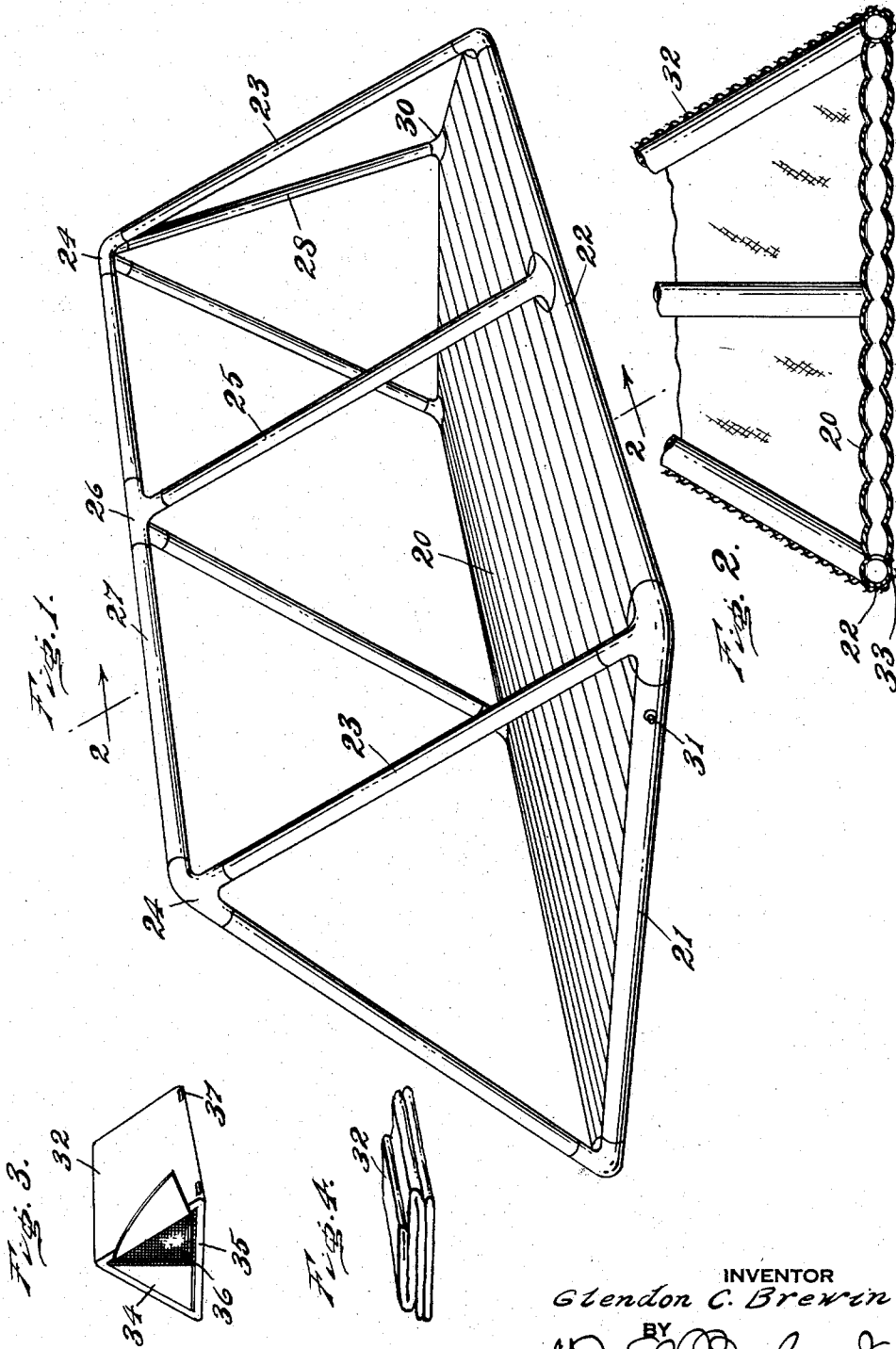


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INFLATABLE TENT
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INFLATABLE TENT

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1 Claim. (Cl. 135—1)

The present invention relates to a tent which is readily inflatable and particularly adapted for use as survival equipment.

A purpose of the invention is to provide a more strongly braced, lighter and more roomy inflatable tent.

A further purpose is to permit very rigid erection of an inflatable tent even by personnel who may be injured, as for example, in the case of an airplane crash.

A further purpose is to eliminate any need for poles or ropes or connection with the ground in erecting a tent.

A further purpose is to reduce the hazard from surrounding conditions such as marshy, sandy, and rocky ground, insects, vermin and snakes in connection with the use of a tent.

A further purpose is to make an inflatable tent in the form of a triangular prism using inflatable trusses which extend up at the ends and at an intermediate point, and an inflatable ridge rib which extends from one truss to another, integrating the entire structure with an air mattress so as to strengthen the inflatable trusses against distortion.

Further purposes appear in the specification and in the claim.

In the drawings I have chosen to illustrate one only of the numerous embodiments in which my invention may appear, selecting the form shown from the standpoint of convenience in illustration, satisfactory operation and clear demonstration of the principles involved.

Figure 1 is a perspective of the tent of the invention omitting the tent canopy.

Figure 2 is a fragmentary section on the line 2—2 of Figure 1 showing the canopy.

Figure 3 is a reduced scale perspective of the completed tent with one flap open showing the insect screen.

Figure 4 is a perspective showing the tent collapsed and ready for erection.

In the prior art efforts to provide inflatable tents have met with limited success because such tents previously provided have not been very stable, and often have not been of a shape which is roomy, while at the same time providing proper protection.

In accordance with the present invention an inflatable tent is provided which can be erected using one hand by a person injured, for example, in an airplane crash, and which gives considerable protection both against sun, wind, rain, snow and sleet, and also against surrounding hazards such as marsh, sand, rocky ground, insects, vermin, snakes and the like. Once the tent of the invention is erected and an occupant is inside, the tent is sealed against ordinary intrusion of insects and the like, and also provides a comfortable bed both for the use of the soldier, camper, fisherman or the like, but also for the care of injured and wounded. The tent of the invention can also be erected on a life raft or boat.

Since the tent of the invention requires no attachment to the ground or floor it can be used satisfactorily

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on hard or uneven ground, on the deck of a raft, ship or boat, and on ice or snow.

The construction integrates the air mattress as part of the inflatable structure, so that crossbracing of the trusses is obtained by the air mattress construction.

The device can be erected in a few seconds either using a compressed gas cylinder (such as carbon dioxide) or using a small pump.

The discomfort caused by dampness and ground seepage in ordinary tents is not encountered in the case of the tent of the present invention.

It will, of course, be understood that the tent of the invention can be made in a size for a single person and also in larger sizes for two or four or a squad as desired.

Considering now the structure in detail:

I provide an inflatable air mattress 20 suitably of rectangular form and surrounded at the ends by inflatable base ribs 21 and at the sides by inflatable base ribs 22, all secured to the air mattress. At the corners the base ribs connect with inflatable ribs 23 which extend upwardly and converge to form a triangular truss, joining at the top at 24. At an intermediate point, suitably the middle of each side, an inflatable rib 25 extends up and converges and joins at a center point 26. An inflatable rib 27 connects the point 26 of the center truss with each end truss at point 24 and the inflatable rib 27 extends across the center ridge of the tent parallel to the air mattress.

Preferably at the end remote from the door an inflatable rib 28 extends down from the point 24 to a point 30 at the center of the base rib at that end. The end is slightly curved to extend the point 30 beyond the corners of the air mattress.

All of the inflatable ribs and the mattress are gas tight for normal purposes and all are connected together internally so that the entire structure can be erected very quickly by connecting a pump or compressed gas cylinder to valve 31 preferably in one of the base ribs.

In effect, therefore, there is a series of triangular trusses connected by a ridge rib and secured and braced at the base by the air mattress.

When the structure is complete a tent canopy 32 extends over the ribs at the top and is suitably secured under the air mattress as by airtight stitching at 33. The tent at the front has flaps 34 which extend down and connect with a raised airtight fabric rim 35 at the bottom preventing the entry of water. An insect screen 36 is secured at the inside of each flap in the doorway. Suitable hand holds or grips 37 are provided at the side, and these can be used to fasten down the tent.

The collapsed tent as shown in Figure 4 is folded so that the valve is accessible, and it can be erected in a minute.

The inflatable ribs and the air mattress are suitably made of rubberized cloth such as rubberized nylon, rubberized canvas, rubberized duck or a suitable gas-tight plastic or rubber material such as polyvinyl chloride or neoprene.

It will be understood that the use of a series of triangles of uniform shape provides effective bracing and at the same time assures adequate room not only for personnel but for clothing and other equipment.

The screen is preferably of nylon to prevent insects, rodents and reptiles from entering the tent. Suitable slide fasteners will be used to secure the flaps and screen as well known in the art.

It will, of course, be understood that if wind conditions or the like necessitate it, the tent can be fastened to the floor or the ground by securing fastenings to the loops 37.

One of the great advantages as evident from the con-

struction is that the tent is extremely light, but will give a maximum of protection.

The exterior of the tent resembles a so-called pup tent when erected.

The tent of the invention is useful both in the tropics and in the Far North, suitable adaptation for ventilation being provided if required through the provision of a window at the end remote from the door. The window, if used, will desirably be screened.

In view of my invention and disclosure variations and modifications to meet individual whim or particular need will doubtless become evident to others skilled in the art, to obtain all or part of the benefits of my invention without copying the structure shown, and I, therefore, claim all such insofar as they fall within the reasonable spirit and scope of my claim.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

A tent comprising bottom side ribs, a bottom front rib in the same plane as the bottom side ribs, an air mattress within the space defined by the bottom side ribs and the bottom front rib in the same plane as the bottom

side ribs and bottom front rib and extending across between said ribs, upright triangular converging front, middle and back side wall ribs connecting at the bottom through corner elements with the bottom side ribs and in the case of the front side wall ribs connected through the corner elements with the bottom front rib, all of the side wall ribs on each side lying in the same plane, a ridge rib extending across the top between the front side wall ribs and the middle side wall ribs and between the middle side wall ribs and the rear side wall ribs, the respective configuration of the tent being substantially that of a triangular prism, the various ribs being hollow and inflatable, and a tent canopy extending over the various ribs and joined together around the bottom.

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