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INFLATABLE SHELTER DEVICE

Filed Sept. 5, 1958

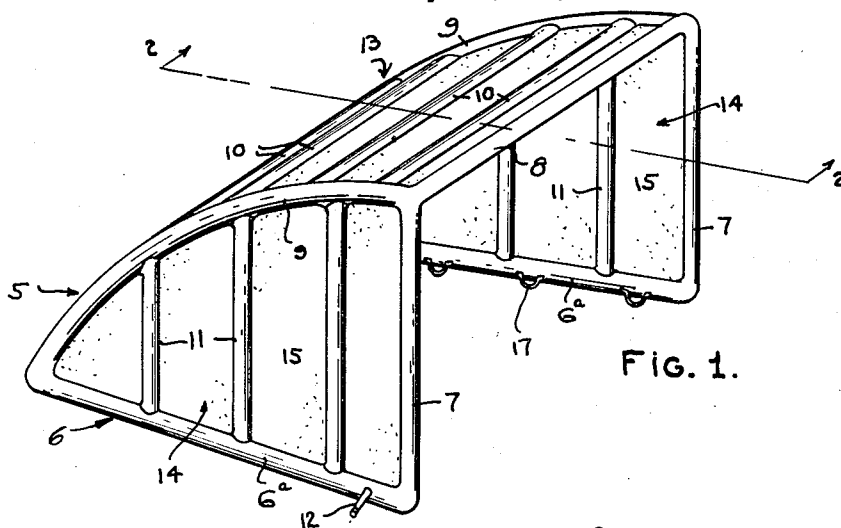


FIG. 1.

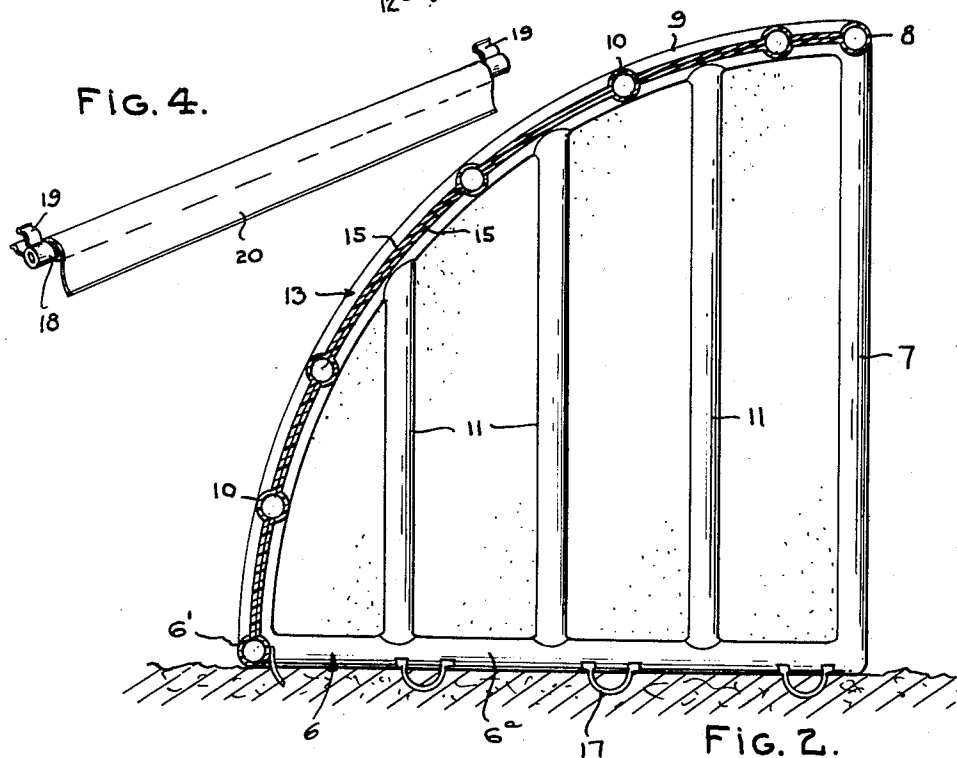


FIG. 2.

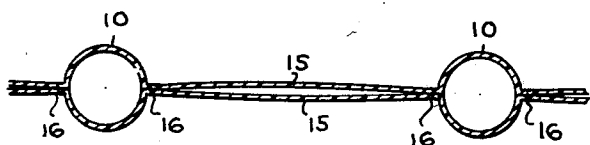


FIG. 3.

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INFLATABLE SHELTER DEVICE

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1 Claim. (Cl. 135—1)

This invention relates to an inflatable shelter device commonly referred to as a beach cabana and has particular reference to a shelter device that is collapsible for packing and storage purposes and inflatable, whereby the device will assume a predetermined shape as a shelter or beach cabana that is open upon one side.

The invention contemplates a shelter device that is formed of sheets of flexible material and with the sheets having spaced apart tubes that define the front opening of the device, the base for resting support upon the sand or other area and a plurality of tubes and with all of the tubes, constituting the base, the side walls and the top covering being intercommunicating and inflatable from one or more valved devices that may function as a means to inflate the several tubes either by the mouth of the user or a suitable source of compressed air.

The invention further contemplates a closure for the forward open side of the device that is supported upon a roller and with the roller having clips at its opposite ends for clipping engagement with an upper tube of the open side and whereby the open side may be closed or, the sheet carried by the roll may be employed to constitute a bottom or floor section for the device.

Novel features of construction and operation of the device will be more clearly apparent during the course of the following description, reference being had to the accompanying drawings, wherein has been illustrated a preferred form of the device and wherein like characters of reference are employed to denote like parts throughout the several figures.

In the drawings:

Figure 1 is a perspective view of a shelter device constructed in accordance with the invention and shown in the inflated shelter forming position,

Figure 2 is a section taken substantially on line 2—2 of Figure 1,

Figure 3 is an enlarged section through a plurality of the tubular structures and,

Figure 4 is a perspective view of a roller supported closure device for the shelter.

Referring specifically to the drawings, the device embodies a frame 5 that comprises a generally U-shape base tube 6, upstanding tubes 7 and a horizontal tube 8 constituting the basic frame for the device. The rear tube 6', the right angle tubes 6a, the vertical tubes 7 and the upper tube 8, define the general shape of the device and with the tubes 7 and 8 constituting a generally rectangular frame opening for the device. The upper end of each tube 7 and the connecting corner portion of the tubes 6' and 6a are connected by an arcuate tube 9, defining with the device a generally segmental closure device. The tubes 9, at spaced apart points from the tube 8, to the tube 6 are connected by horizontal tubes 10, while the arcuate tubes 9 and the tubes 6a are connected by perpendicular spaced apart tubes 11. It should be pointed out at this time, that the several tubes constituting the shelter are all communicating and inflatable from a suitable inflation valve device 12. The entire structure in-

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cluding the arcuate cover 13 and the ends 14 are formed by layers of preferably plastic sheets 15, that are heat treated and united along the lines 16 to define the several tubes, thus forming an enclosure wall that is supported in an upright manner to constitute the open front shelter in a semi-rigid manner, with the tubes 6' and 6a adapted to rest upon the sand or other surface upon which the device is to be employed. The uniting of the sheets 15 at spaced apart points along the lines calculated to define the tubes 6', 6a, 10 and 11 provide a completely walled shelter upon opposite ends and the top that are of a double-wall thickness and that are held in extended inflated condition that will maintain the shape of the device under normal conditions. Plastic has been employed as a very desirable material for the formation of this device and is easily heat treated along the line 16 to provide the several tubes. The tubes 6' and 6a may be provided with loops of suitable material, indicated at 17 through which pegs or otherwise fastening devices may be driven into the soil as a means to hold the device against shifting under the influence of wind pressures.

It has also been found desirable that a closure cover be provided for the open forward end of the device to afford privacy and for this purpose, there has been provided a sheet of flexible closure material, normally wound upon a roller device 18, indicated in Figure 4. The roller device may employ resilient clips 19 at its opposite ends, that may have clipped engagement over the forward upper tube 8 and whereby the sheet of material 20 may be drawn downwardly and disposed over the open side of the device. The sheet of material 20 may also be employed to overlie the ground area within the device as a floor section, if so desired. The entire device is flexible to the extent, that when in the deflated condition, it can be collapsed and either folded or rolled into a relatively small package, convenient for storage or transportation.

It will be apparent from the foregoing that a very novel form of protective closure device has been provided. Cabana devices are commonly in use and usually are of relatively rigid construction, making it difficult to fold or collapse the device in a desirable small package. The device of this invention is formed in a novel manner, is economical to manufacture, will maintain its shelter forming shape to a high degree and is readily deflatable for storage purposes. The use of the double-sheet construction 15 also adds to the insulating qualities of the device and permits individuals to sit within the device for protection from rain, wind and the heat rays from the sun. The device also readily lends itself to various sizes whereby to constitute both a shelter and a sufficient area wherein persons may employ the device for changing bathing suits and other purposes wherein privacy may be desired and also constitutes a very desirable shelter or dressing enclosure for use around swimming pools or the like and is in no sense restricted as to its dimensions.

It is to be understood that the invention is not limited to the precise construction shown, but that changes are contemplated as readily fall within the spirit of the invention as shall be determined by the scope of the subjoined claim.

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

An inflatable and collapsible shelter device that comprises end walls and a rearwardly and downwardly curved top wall, the device having an open forward side and an open bottom, vertical tubes defining the forward edges of the end walls and a horizontal tube defining the forward edge of the top, a continuous tube extending entirely around the open bottom of the device to constitute a base, the upper marginal edges of the end walls being defined by rearwardly and downwardly curved tubes, the end walls being provided with spaced apart vertically arranged

tubes that communicate with the bottom defining tubes and also with the rearwardly curved tubes, the top being provided with a plurality of spaced apart parallel tubes that communicate with the downwardly curved tubes, webbing extending between the several tubes and connected thereto, all of the tubes being in communication, an inflation valve connected with one tube and whereby the several tubes may be simultaneously inflated to cause the end walls to be erect and with the webbing between the tubes being extended for completely closing the device upon its ends and top, the webbing between the several

tubes being of a double thickness and with the webbing being air tight and water tight.

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