

Nov. 28, 1950

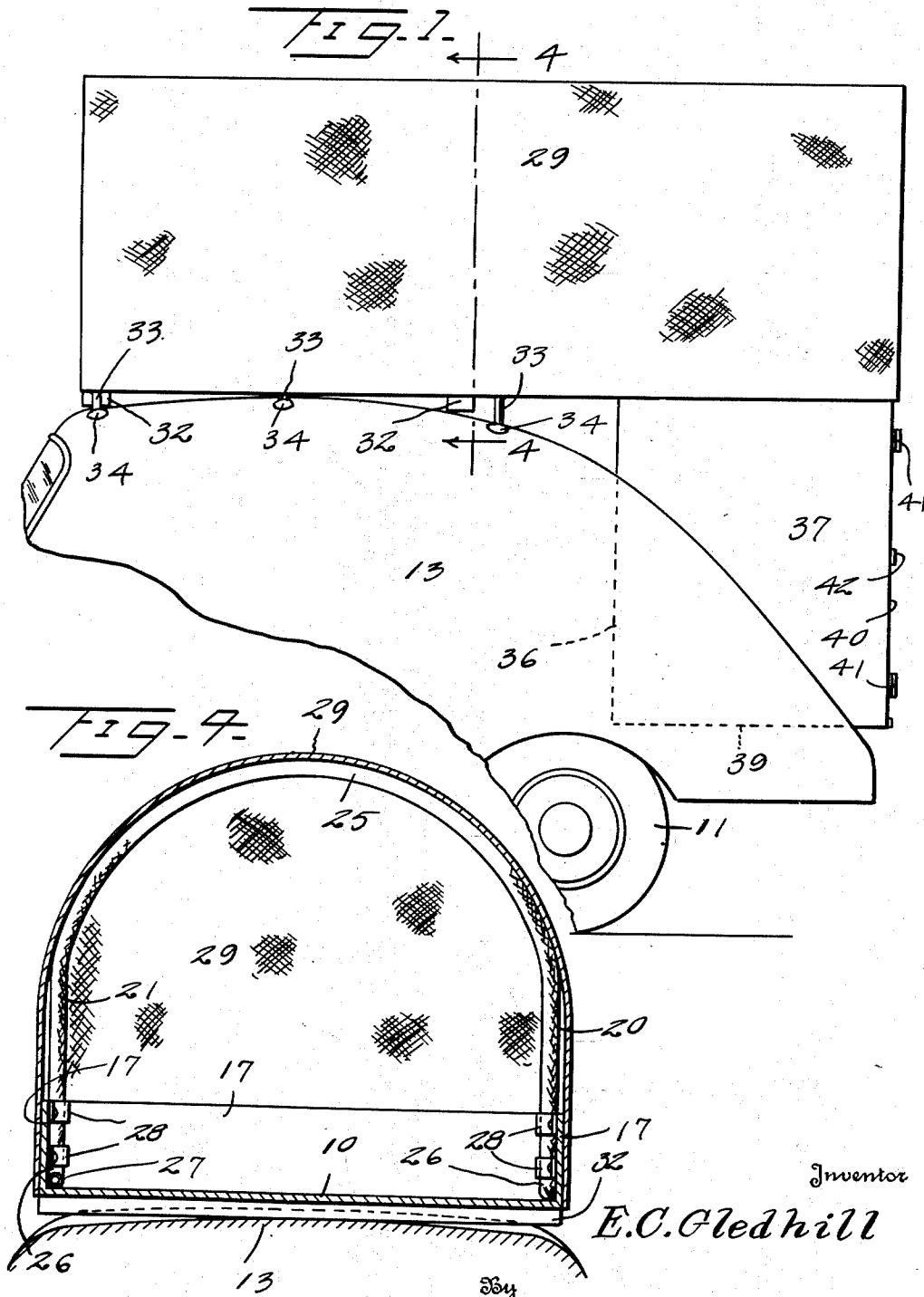
E. C. GLEDHILL

2,531,678

PORTABLE COMPARTMENT AND COLLAPSIBLE FRAME FOR SAME

Filed Feb. 19, 1948

4 Sheets-Sheet 1



Inventor

E.C. Gledhill

By

Kimmel & Crowell Attys.

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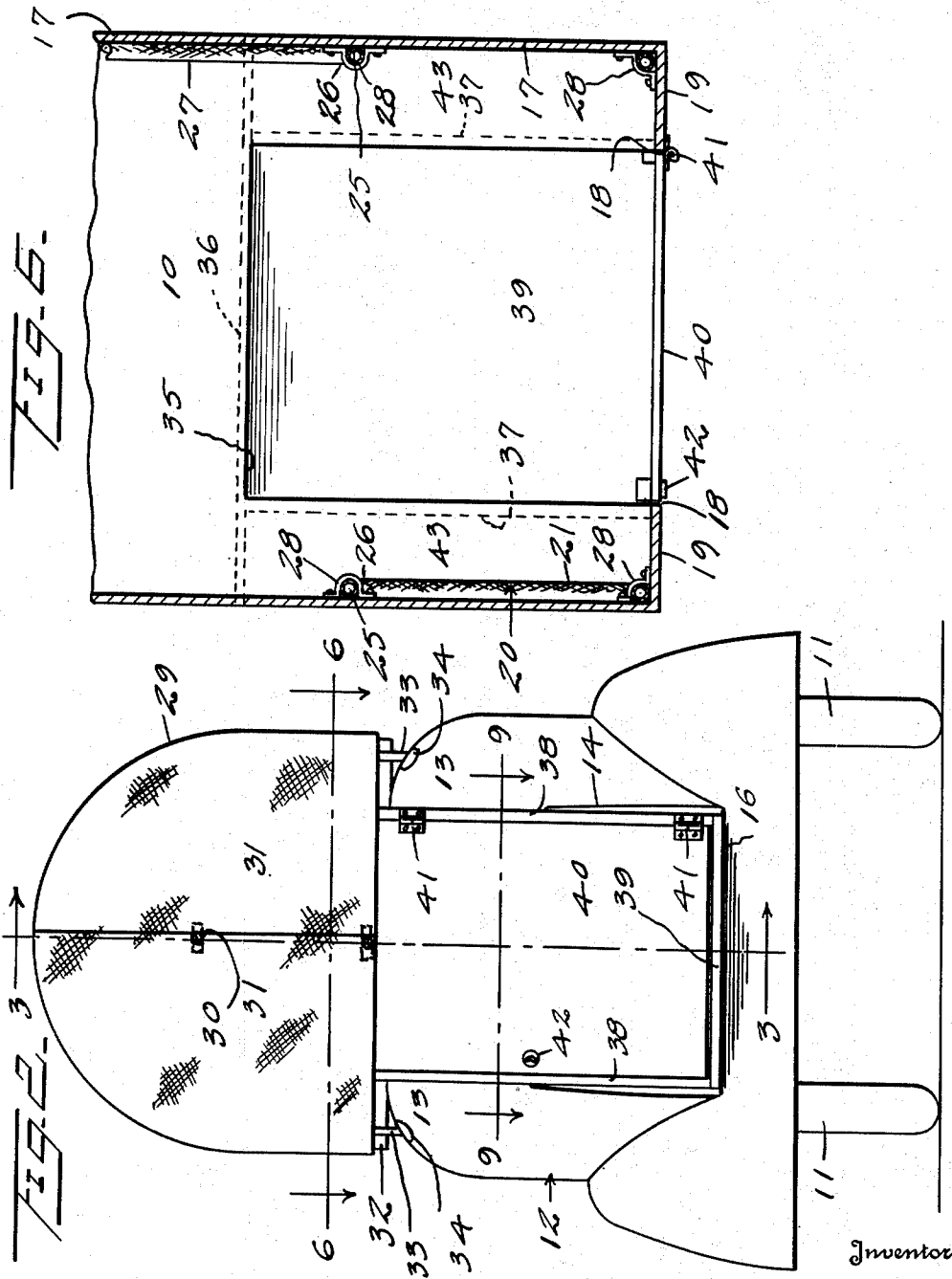
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4 Sheets-Sheet 2



Inventor

E. C. Gledhill

By

Kimmel & Crowell Attys.

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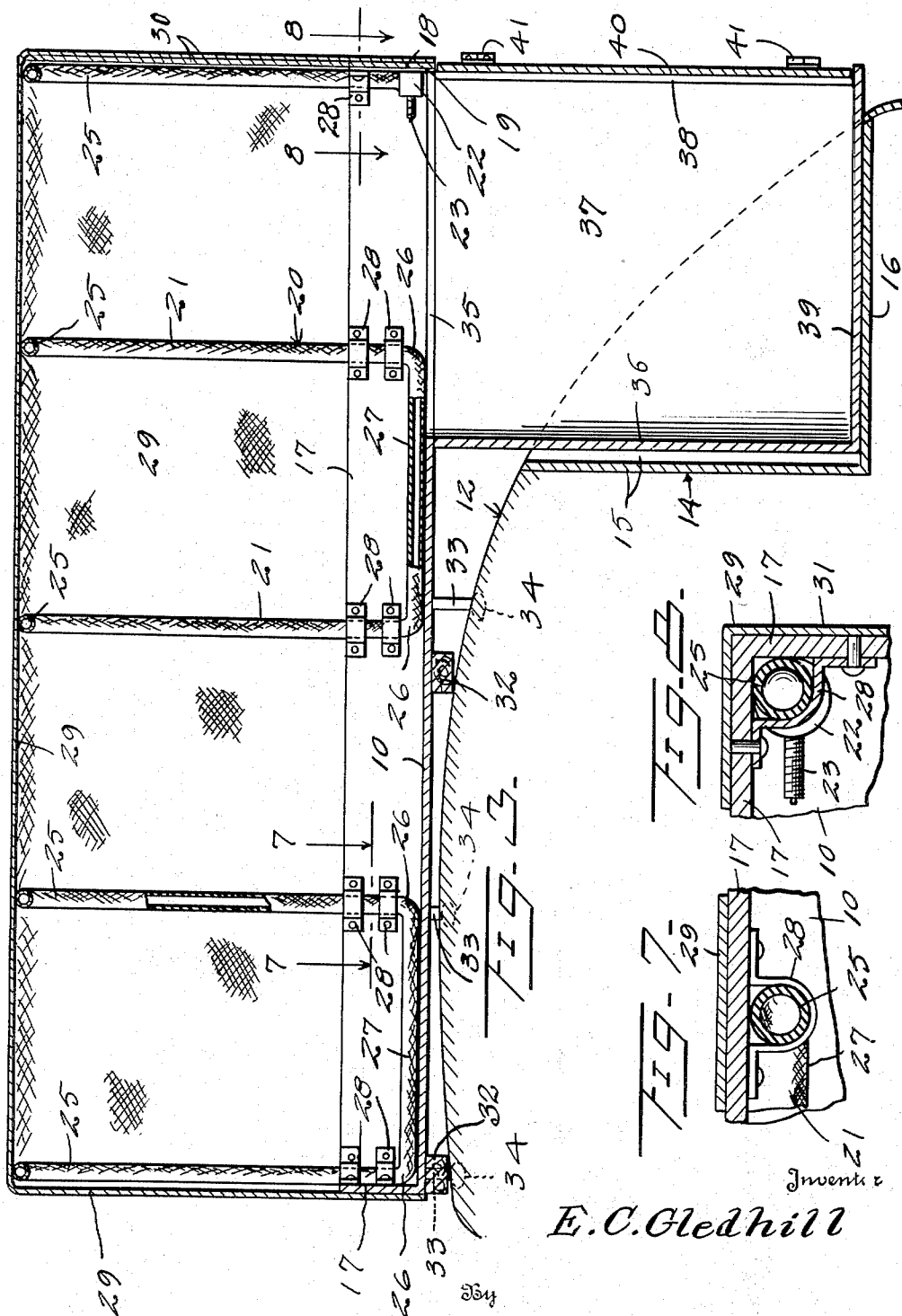
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Kimmel & Crowell Attys.

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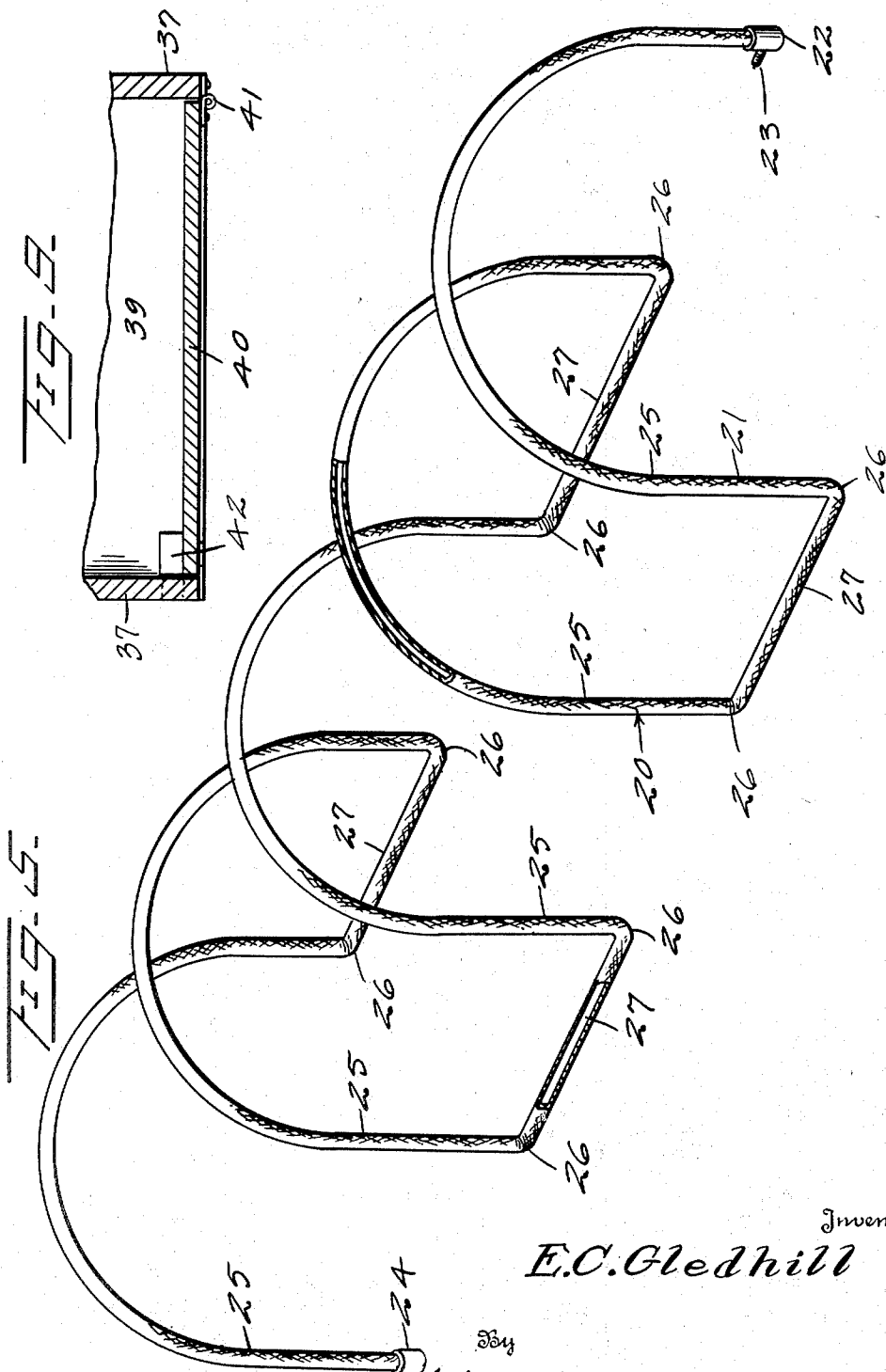
E. C. GLEDHILL

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4 Sheets-Sheet 4



Inventor

E.C. Gledhill

By

Kimmel & Crowell Attys.

UNITED STATES PATENT OFFICE

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PORTABLE COMPARTMENT AND COLLAPSIBLE FRAME FOR SAME

Edward C. Gledhill, Gallion, Ohio

Application February 19, 1948, Serial No. 9,384

2 Claims. (Cl. 135—5)

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My invention relates to a portable sleeping compartment or bag and combination dressing room and collapsible frame for same, in which the frame is provided with a flexible sheet or canvas cover over the sleeping compartment or bag forming a waterproof and weatherproof canopy or roof and sides for both the compartment and room collapsible with the frame when not in use to substantially eliminate or reduce wind resistance when traveling, but adapted to be extended or raised for use and to provide ample head room over both and especially when standing in the dressing room, as well as to render the same sufficiently rigid to be wind and rain resistant.

An object is to provide a lightweight simple, novel and inexpensive portable and collapsible sleeping compartment or bag with or without an associated dressing room or compartment as an adjunct thereof, for application to a vehicle such as an automobile or trailer, as a convenience in traveling or touring by providing a covered sleeping compartment with a horizontal support plate or floor forming the bottom thereof to take a spring and mattress or simply the latter, and a dressing room with an entrance and through which access is had to the sleeping compartment, while permitting a person to stand while dressing, undressing, shaving and so on.

Another object is to provide novel means in the form of a collapsible arched support or frame having a plurality of spaced arches or bows, produced by an inflatable hose which when deflated collapses, and when inflated at the proper pressure through an inflation valve provided thereon, will assume a rigid erect extended or raised position together with the canopy or cover thereover with the overlying sections of the hose bowed or arched to support the canopy over a spring and mattress of the sleeping compartment and a dressing room at one end, which is wind and rain resistant and permits one to walk into and out of the dressing room without stooping by means of a door and split curtains over the door for closing the entrance end over the door for warmth and privacy or providing an opening for air and ventilation.

Still another object is to provide a sleeping compartment of the type or construction set forth above, which may be used independently of or separate and apart from the dressing room, in addition to the conjoint use on the top and in the rear trunk compartment of an automobile or mounted on two or more wheels or a wheeled vehicle such as a trailer, or without the dressing room, over the cab and engine hood of a motor truck or the like purely as a sleeping berth.

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With the above and other objects in view, my invention consists in the arrangement, combination and details of construction disclosed in the drawings and specification, and then more particularly pointed out in the appended claims.

In the drawings,

Figure 1 is a side elevation showing one embodiment of the invention,

Figure 2 is a rear elevation of the device as shown in Figure 1,

Figure 3 is a longitudinal sectional elevation partly broken away and in section, taken on the line 3—3 of Figure 2,

Figure 4 is a transverse section taken on the line 4—4 of Figure 1,

Figure 5 is a perspective view of a collapsible arched support or frame used to support the canopy shown in an extended or raised position, partly broken away and in section,

Figure 6 is a fragmentary horizontal section of the rear portion of the sleeping compartment and dressing room taken on the line 6—6 of Figure 2,

Figures 7 and 8 are enlarged fragmentary detailed horizontal sections taken respectively on lines 7—7 and 8—8 of Figure 3; and

Figure 9 is an enlarged detail horizontal section of the rear portion of the dressing room and the closure therefor taken on the line 9—9 of Figure 2.

Referring to the drawings, the device is shown as comprising a horizontal support, plate or floor adapted to be supported upon a suitable wheeled or motor vehicle or on two or more wheels 11 such as an automobile or trailer, the vehicle being represented for sake of illustration as an automobile having a body or top 13 with a trunk compartment 14 formed by vertical walls 15 with the sides thereof and a floor 16 of any conventional or desired type. Floor 10 may if desired have a shallow upstanding rim or panel 17 extending entirely along the sides and one end while the other end may be cut out at the center or otherwise as at 18 for a door entrance and forming short panel sections 19 at each side.

Arranged upon the horizontal support 10 is a collapsible and extensible cover including a collapsible frame or arched support 20 shown as comprising a single continuous section of inflatable air tight hose 21 of proper length such as 50' or otherwise having at one end a fitting 22 with an inflation valve 23 and closed air tight at the other end as by a fitting 24. The hose 21 has the ends just described arranged at opposite sides and diagonally opposite corners and intermediately is bent to form a plurality of

transverse longitudinally spaced parallel upwardly extending vertical raised portions, arches or bows 25 of any suitable number, but shown as five including those at the extreme ends of the support 10. The hose 21 is arranged or bent in tortuous or sinuous form at right angles at two spaced points 26 at alternately opposite sides between adjacent pairs of arches or bows 25 to form spaced horizontally extending connecting portions 27 between the bends or right angular portions 26 which are also located alternately at opposite sides to form base or supporting portions resting on the support 10 within and at the bottom of the rim 17. These portions 27 or the adjacent vertical portions may be suitably anchored in position and as shown, the lower portions of the vertical extensions or legs of the arches or bows 25 are attached to the base formed by the support 10 and rim 17 and anchored to the floor or otherwise as by a plurality, preferably pairs of vertically spaced supports or clips 28 except that a single clip may be used at each end above the fittings 22 and 24. These clips 28 may be anchored to the rim 17 at the inside to maintain the legs and arches or bows in upright position when the hose is inflated to the proper sustaining pressure to make the same rigid. However, when the hose is deflated, the arches or bows will collapse downwardly in compact relation automatically, in addition to assuming their vertical supporting positions automatically when the hose is inflated. In the latter position, the arches or bows of the supporting structure or frame are designed to take a waterproof canopy or flexible sheet 29 which is shaped to conform to the curvature of the arches and extend over the sides and ends of the sleeping compartment thus formed. The compartment is thus an elongated horizontal bag-like structure of sufficient length to accommodate a person in a reclining position and a spring and mattress with proper bed covering and pillow or simply a mattress so covered may be arranged therein upon the horizontal support or floor 10 for the comfort of the user. At one end, such as at the back, the canopy 29 may be provided with a vertical slit or opening 30 to provide curtains 31 on either side thereof which may be suitably fastened when closed or unfastened or opened and swung to either side to facilitate ingress and egress with respect to the compartment.

The device as thus described may be arranged on or to form part of a trailer or over the cab and engine hood of a motor truck or otherwise suitably arranged and mounted upon wheels for transport from place to place in traveling. However, as shown, the device is arranged over the top or body 13 of the automobile with suitable transverse cleats 32 to bear upon the top of the body and having suitable vertical supports 33 at spaced intervals of the length thereof and which may include attaching means or suction cups 34, or other suitable anchoring means for attaching the same to the body securely so as to prevent displacement thereof.

Also, the rear portion of the floor of the compartment represented by the horizontal support 10 may be provided with an opening or cut-out 35 disposed over the trunk compartment and from which depends an inner wall 36 and side walls 37, while the sections 19 of the rim 17 may be continued downwardly or supplemented by side walls or strips 38 and all connected at the bottom by a flooring 39 leaving the opening 35 extending through the back end and adapted to

be closed by a closure or door 40. This door is shown hinged at 41 at one side and provided with a suitable latch or lock 42 at the other side whereby the dressing room thus formed at the rear end of the sleeping compartment may be closed and locked for security and privacy. It should also be noted that the depending extension thus formed at the rear of the sleeping compartment extends down into the trunk compartment so that the floor 39 rests upon the floor 16 of the trunk compartment, it being understood that the door of the trunk compartment is removed to accommodate these parts. The dressing room thus provided is of sufficient height to accommodate a person in standing position when dressing, undressing, shaving, etc., and the horizontal side walls 43 produced at each side of the cut-out 35 and extending from the inner edge of the cut-out to the rear end of the floor or support 10 of which they form a part and also to the rear end of the dressing room, provide shelf space on which necessities or accessories may be supported in convenient position for use. Also, the floor of the dressing room may be suitably secured or bolted to the floor of the trunk compartment to cooperate with the attaching means for the sleeping compartment for the purpose of securely anchoring the device in position and resisting wind. However, since the device is set up only when in use or overnight, it is readily collapsed by deflating the hose for traveling, so as to substantially eliminate or reduce wind resistance when the vehicle is moving. Also since the canopy is of waterproof material, it will not only be wind and rain resistant but will provide the necessary warmth and privacy when the device is in use, although the curtains may be readily thrown open in order to permit necessary ventilation and exposure to air or atmosphere when desired or needed.

When the arched frame structure formed by the air tight inflatable hose or inflatable portions thereof are filled with air at the proper pressure, the same is not only rigid but there is also sufficient room over the horizontal base or support and over the mattress to permit a person to crawl in and out without particular inconvenience. Access to and from the sleeping compartment is also facilitated by the dressing room in which a person can stand and especially the cut-out or recess in the bottom of the compartment at one end. The device is of great convenience for use at night or otherwise when traveling, or in an emergency and due to its light weight, may be easily carried along with a vehicle for transport or in connection with an automobile and when collapsed, very little wind resistance is encountered. The inflation and deflation of the hose may be accomplished in a minute's time to cause automatic extension and raising of the frame of the sleeping compartment and the canopy or canvas cover therewith, and also collapsing thereof by deflation. The device may be equipped with a suitable heater employing electricity or fuel oil which may be provided with a suitable control or thermostat to regulate the temperature. The shelves at the sides of the cut-out may also be equipped with a bowl for washing and water supplied through a faucet from a supply tank in the vehicle or trunk compartment of an automobile placed under pressure to cause the water to flow and another tank may be similarly arranged carrying air under high pressure for inflating the hose forming the frame or portions thereof, espe-

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cially the arches or bows, to effect the extension and collapsing of the sleeping compartment or bag.

I do not mean to confine myself to the exact details of construction herein disclosed but claim all variations falling within the purview of the appended claims.

What I claim is:

1. A compartment of the class described comprising a horizontal support including a flat plate having upstanding side and end walls, a collapsible frame mounted on said support, said frame including an elongated inflatable member having the ends thereof secured at diagonally opposed corners of said support, said member having intermediate spaced portions thereof disposed along the inside of said side walls, vertically opening clamps secured to said side walls and adapted to clamp said member at the opposite ends of said intermediate portions, conditional portions of the length of said member between said intermediate portions being disposed in arched form in transverse relation across said support, said clamps disposing said additional portions of said length in vertically extending relation to said support, and a moisture repellant cover extending over said frame and secured to said walls whereby when said member is inflated said lengths will be disposed in rigid upright position of supporting said cover.

2. A compartment of the class described comprising a supporting base including a horizontal floor member and upstanding side and end flanges formed thereon, a collapsible frame

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mounted on said base, said frame including an elongated inflatable member having spaced horizontal portions thereof disposed in alternate relation along the opposite side flanges, clamps secured to said side flanges engaging said inflatable member at the opposite ends of said spaced portions thereof and adapted to bend said ends to an upright position, the portions of the length of said inflatable member between said spaced portions extending transversely of said base in arched position and adapted to be disposed in an upright position when said member is inflated, each of said portions between said spaced portions connecting one end of a spaced horizontal portion on one side of said base with an end of a spaced horizontal portion on the opposite side of said base, and a cover member extending over said frame and having the edges thereof secured to said marginal flanges.

EDWARD C. GLEDHILL.

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The following references are of record in the file of this patent:

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Number	Name	Date
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