Feb. 11, 1964 S. N. SMALL 3,120,978

COLLAPSIBLE KNOCKDOWN CABANA

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FIG. 1.

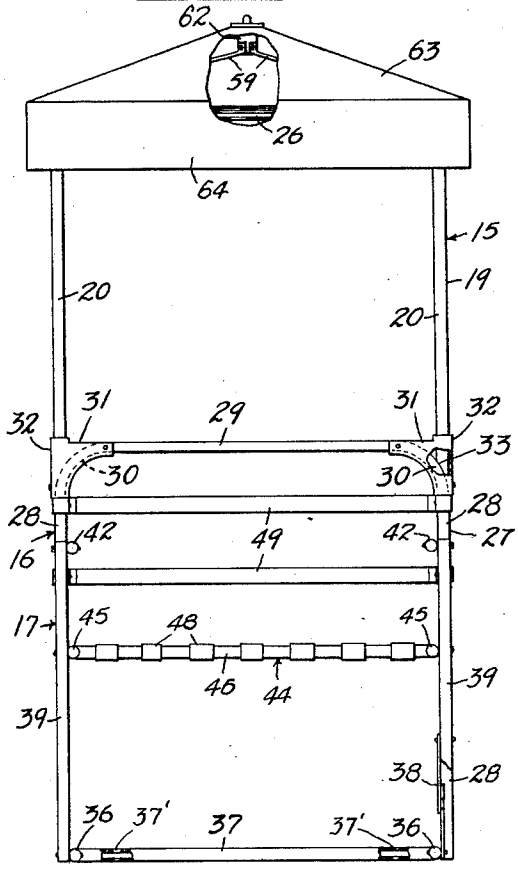


FIG. 2.

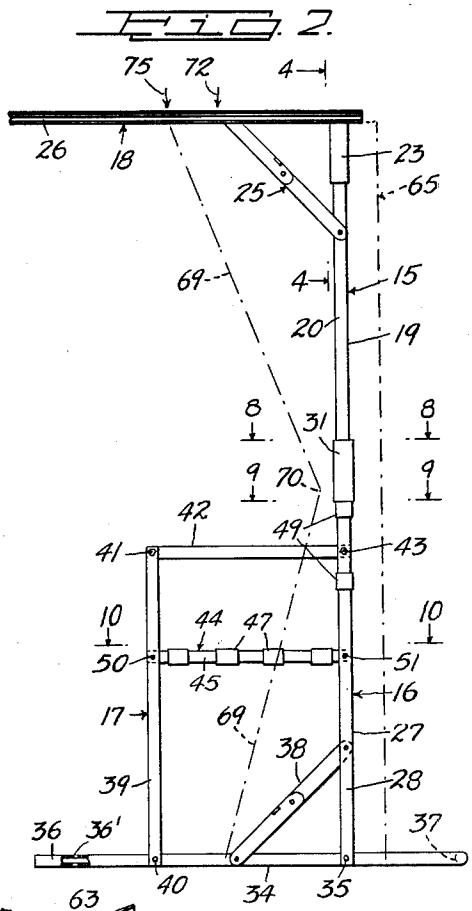


FIG. 3.

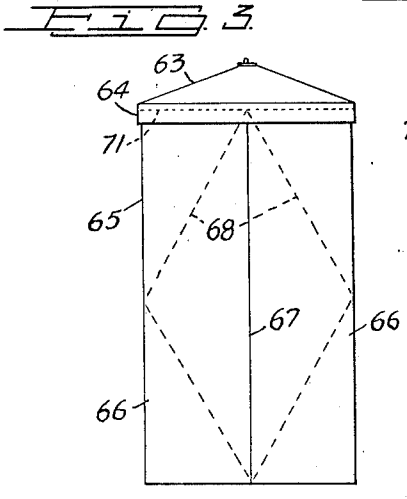


FIG. 4.

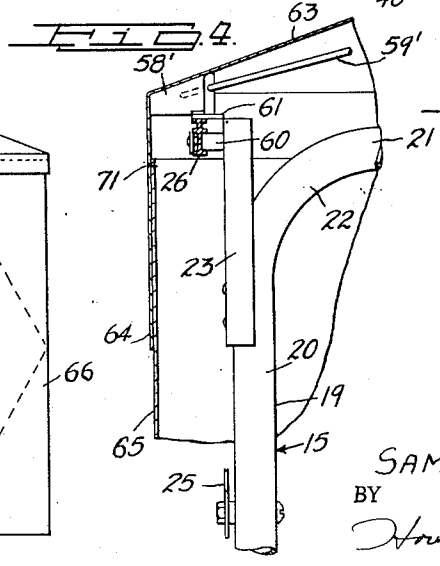
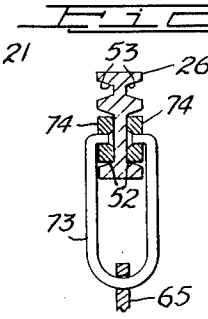


FIG. 5.



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FIG. 6.

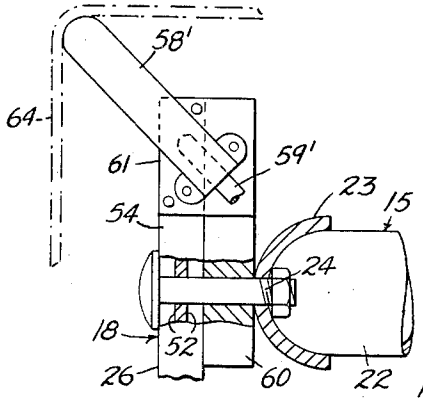


FIG. 8.

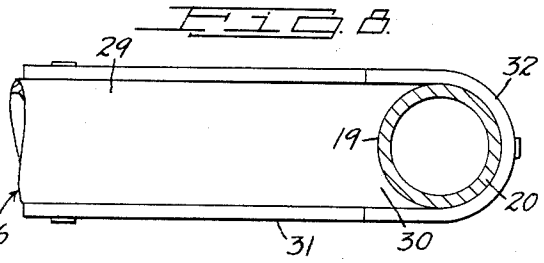


FIG. 7.

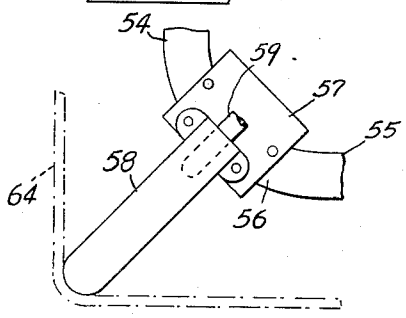


FIG. 9.

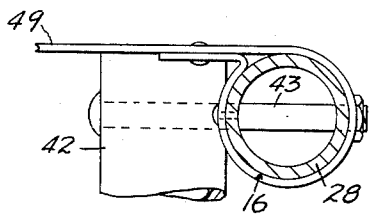
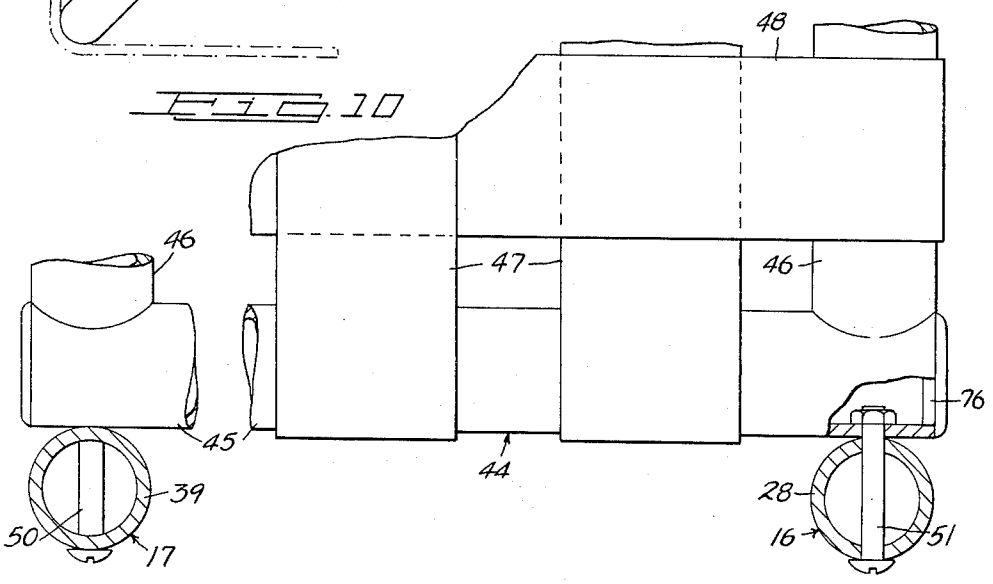


FIG. 10



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COLLAPSIBLE KNOCKDOWN CABANA

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2 Claims. (Cl. 297—184)

This invention relates to what are generally referred to as cabanas. More particularly, the invention deals with a frame structure for devices of this type and kind employing detachably coupled upper and back and bottom parts, wherein the back and bottom part includes a seat part foldable or collapsible with respect thereto.

Still more particularly, the invention deals with a frame structure of the character defined, wherein the upper part includes a canopy and enclosure curtain supporting frame collapsible with respect to the upper part, whereby the entire device can be packaged and shipped in a relatively small container.

The novel features of the invention will be best understood from the following description, when taken together with the accompanying drawing, in which certain embodiments of the invention are disclosed and, in which, the separate parts are designated by suitable reference characters in each of the views and, in which:

FIG. 1 is a diagrammatic front view of the framework of the cabana illustrating the canopy on the upper frame part, with parts of the structure broken away and omitting the curtain enclosure for the frame.

FIG. 2 is a diagrammatic side view of the structure as seen in FIG. 1, omitting the canopy top and diagrammatically illustrating in dot-dash lines the position of the enclosure curtain when in open position.

FIG. 3 is a rear view of the cabana, diagrammatically illustrating the canopy and the enclosure curtain in closed position in full lines and in dotted lines illustrating the rear portion of the curtain in its open position.

FIG. 4 is an enlarged detail sectional view on the line 4—4 of FIG. 2 showing one side portion of the upper part of the frame and the support for the canopy thereon.

FIG. 5 is a detailed sectional view through the curtain supporting frame showing one of a number of curtain hangers and part of the upper portion of the curtain attached thereto.

FIG. 6 is an enlarged plan view of one rear side portion of the canopy supporting frame, illustrating the depending wall portion of the canopy in dot-dash lines and attachment to the upper part of the main frame, with parts of the construction broken away and in section.

FIG. 7 is an enlarged plan view of one front corner portion of the canopy supporting frame, illustrating again part of the depending wall of the canopy in dot-dash lines.

FIG. 8 is an enlarged detail sectional view on the line 8—8 of FIG. 2, showing one side of the upper part of the frame.

FIG. 9 is a view similar to FIG. 8 taken on the line 9—9 of FIG. 2; and

FIG. 10 is a sectional plan view on the line 10—10 of FIG. 2, with parts of the construction broken away.

In FIGS. 1 and 2 of the drawing, I have diagrammatically illustrated the general framework of the cabana, which is defined by two primary parts, namely the upper part 15 and the lower part 16, the latter including a seat part 17 collapsibly coupled with the part 16, the upper part 15 having a canopy supporting frame 18 collapsibly coupled with the upper part.

The part 15 comprises a U-shaped tubular frame 19 defined by vertical side tubes 20 joining an upper crosshead 21 in rounded corner portions 22, one of which is clearly shown in FIG. 4 of the drawing. As each side

of the frame 19 is of identical construction, the brief description of one side will apply to both. Each side of the frame has fixed thereto an upwardly projecting U-shaped bracket 23, shown in section in FIG. 6 of the drawing.

Coupled with these brackets are bolts 24, clearly seen in FIG. 6 of the drawing, which form pivotal supports of the frame 18 with the frame 19 and, at each side of the cabana structure, the frame 18 is collapsibly mounted on the frame 19 through suitable brace rods, one of which is diagrammatically illustrated at 25 in FIG. 2 of the drawing. As these brace rods are of more or less standard construction, no detail description thereof will be given. The pivotal mounting of the brace rods with the frame 18 or the curtain supporting rail 26 of the frame is not shown, except that it is clearly indicated that this attachment is on the inner surface of the rail 26. In like manner, the pivotal mounting, as at 24, is not illustrated in FIG. 2. However, it is quite apparent that the bracket 23 is on the inner surface of the rail 26. The detailed structure of the frame 18, including the rail 26, will be later defined.

The lower part 16 also comprises a U-shaped tubular frame 27 having downwardly extending side members 28 joining an upper crosshead 29 in rounded corners, as indicated at 30 in FIG. 1 of the drawing.

Fixed to the rounded corner portions of the frame 27 are generally U-shaped brackets 31, the rounded portions 32 of which form bearing supports for the lower ends of the members 20 of the frame 19, these lower ends being cutaway, as indicated at 33 at the right of FIG. 1, to seat snugly upon the rounded portions 30 of the frame 27, thus supporting the upper part 15 in upright position on the lower part 16, while, at the same time, permitting quick detachment of the upper part 15 from the lower part 16 when reducing the cabana to a knockdown condition. The brackets 31 are generally triangular in form, as viewed from the sides, as clearly noted in FIG. 1 of the drawing, so as to embrace the entire rounded corner portions 30 of the frame 27.

The lower part 16 also includes a U-shaped tubular bottom frame 34 pivoted to the lower ends of 28, as diagrammatically illustrated at 35 in FIG. 2 of the drawing. The side members 36 of the frame 34 extend forwardly and rearwardly in a crosshead 37, which forms at the rear of the cabana a brace for well balanced support of the cabana on a surface upon which it is arranged. The crosshead 37 is clearly illustrated in FIG. 1 of the drawing. At 38 is shown a brace rod structure, generally similar to 25, for collapsibly coupling the frame 27 with the frame 34. Here again, the detail structures of 38 are not given, as devices of this type and kind are well known in the art.

The seat part 17 is optionally used in conjunction with the cabana frame. In other words, the cabana frame can be sold with or without this seat part. The seat part comprises vertical side tubular posts 39, one of which is illustrated, in section, at the left of FIG. 10 of the drawing. These posts are pivoted to the side members 36 of the frame 34, as indicated at 40 in FIG. 2 of the drawing. The posts 39 are in alinement with the side members 28, as will clearly appear in FIG. 10 of the drawing. Pivoted to inner surfaces of the upper ends of the posts 39, as at 41, are tubular armrests 42, the latter being also pivoted to inner surfaces of 28, as at 43, note FIG. 2 of the drawing. Pivoted to 39 and 28 is a substantially rectangular tubular seat frame 44, having front and back tubes 45, the front tube only of this frame being clearly shown in FIG. 10 of the drawing, it being understood that the rear tube is of identical construction. Welded or otherwise fixed to ends of the tubes 45 are side tubes 46, both of which are shown, in part, in FIG. 10 of the drawing.

Attached to all of the tubes 45, 46 is a seat webbing, consisting of forwardly and rearwardly arranged webbings 47 suitably fixed to the tubes 45 and webbings 48 suitably fixed to the tubes 46, one only of the webbings 48 being illustrated in FIG. 10. These webbings have an alternate over and under arrangement, as diagrammatically illustrated, in part, in FIG. 10 and as customary with seat webbings of this type and kind.

Also fixed to the upper portion of the side members 28 of the frame 27 are two backrest webbings 49, attachment of one of these webbings to one side member 28 being illustrated in detail in FIG. 9 of the drawing. FIG. 9 also clearly illustrates the pivotal coupling 43 between the armrest 42 and the member 28.

From the description of the seat part 17, it will be apparent that this part will collapse in moving the frame 34 into collapsed position on the frame 27 in that the seat frame 44 is pivoted to 39 and 28, respectively, as indicated at 50 and 51, which pivots are clearly illustrated in FIG. 10 of the drawing.

Turning now to the canopy frame 18, this frame comprises primarily the curtain supporting rail 26, which is of the cross-sectional contour shown clearly in FIG. 5 of the drawing, having deep side channels 52 at the lower portion thereof and shallower channels 53 at the upper portion thereof. The rail may be said to be double eye-beam cross-sectional form. This rail is U-shaped in plan and comprises side members 54, one only of which is shown, in part, in FIGS. 6 and 7 and a front crosshead 55 shown, in part, in FIG. 7, the sides joining the crosshead in rounded front corner portions 56, again, one of which is illustrated in FIG. 7.

Fixed to each of the corner portions 56 is a plate 57, upon which is secured an outwardly extending rib supporting bracket 58, the rib of which is indicated, in part, at 59. Suitably fixed to the inner ends of the sides 54 of the rail 26 are blocks, one of which is indicated at 60 in FIG. 6 of the drawing. This block primarily forms a spacer between the bracket 23 and the rail 26 with the pivot 24 passing therethrough, as clearly illustrated in FIG. 6. Fixed to the upper surface of the rear ends of the side members 54 of the rail 26 are plates 61, one of which is shown in FIG. 6 of the drawing, and to this plate is secured a bracket 58', generally similar to the bracket 58 and which supports other ribs 59'. The ribs 59, 59' extend upwardly to the top center of the frame 18 and are suitably fixed to a fitting 62, attachment of the ribs 59 to the fitting being diagrammatically illustrated in FIG. 1 of the drawing. The fitting supports the other closure portion 63 of the canopy and the brackets 58, 58' serve to support the periphery of the canopy top in spaced relation to the frame 18, as will clearly appear from a consideration of FIGS. 6 and 7 of the drawing, wherein portions of the depending trim 64 of the canopy are diagrammatically illustrated in dot-dash lines in FIGS. 6 and 7. To simplify the illustration, the depending portion 64 is shown plain in the diagrammatic showing of FIG. 1. However, a suitable scalloping or other decorative finish will preferably be employed on this depending wall portion.

The cabana below the canopy has a curtain or tent enclosure 65, as will appear from the diagrammatic showing in FIG. 3 of the drawing. This enclosure preferably consists of two side portions 66, generally of similar construction, joined centrally at the back at 67 by any suitable fastening means which could be a separable fastener, so that the rear portion can be opened for ventilation, as diagrammatically illustrated by the dotted lines 68. The front of the cabana could have a similar type of juncture between the sides 66, with the exception that it would be preferred that a complete separation between the front sides can be had, so that the front sides can be draped, in the manner illustrated in dot-dash lines at 69 in FIG. 2 of the drawing, with the sides suitably tied or held back, as at 70 at a position adjacent the brackets 31.

The upper portion of the curtain or tent will be stitched to the depending wall 64 of the canopy, as diagrammatically illustrated at 71 in FIG. 4 of the drawing, along the back wall and to a point approximately at the arrow 72 of FIG. 2 of the drawing. The remainder of the sides and front portions of the curtain or tent 65 will be hung from suitable hangers, as at 73 in FIG. 5 of the drawing, having rollers 74 at their upper ends moving freely in the channels 52. In order to simplify the showing, no attempt has been made to illustrate the number of hangers employed, but these will be at suitable spaced intervals along the upper edges of 66, so that they will permit gathering of the sides 66 to a point approximately as indicated at 75 in FIG. 2 of the drawing forwardly of the permanent attachment of the curtain or tent at the position 72. In other words, the hangers are checked against further rearward movement on the sides 54 by virtue of the brace rods 25. It will be apparent that, with the curtain or tent in the position as indicated in FIG. 2 of the drawing, the parts 15 and 16 can be detached and packaged in collapsed relationship with respect to the collapsed part 16, it being understood that the lower portion of the curtain or tent is unattached and can be suitably weighted in order to maintain its position around the framework of the cabana.

The accompanying drawings are diagrammatic in many instances in omitting many structural details. For example, ends of the tubes of the different tubular frames will have finished plugs thereon and, to illustrate one of such adaptations, part of the structure of FIG. 10 has been broken away at the right of 44 to show one of these plugs 76. It is also preferred that the forward portions of the side members 36 have vertical apertures, one of which is indicated at 36' in FIG. 2 and that the rear crosshead 37 includes, adjacent the side members 36, apertures 37', as noted in FIG. 1. These apertures 36', 37' will facilitate passing fastening devices therethrough in anchorage of the base 34 to a supporting surface. When fastening devices are not employed, it will be understood that the positioning of the crosshead 37 rearwardly of the upright frame, in combination with the forward extension of the side members 37, will provide a sturdy support of the cabana upon any surface and, particularly, when the curtain or enclosure is tied back, as indicated in dot-dash lines in FIG. 2.

It will be apparent that the enclosure, comprising the curtain or tent, as well as the canopy and its depending wall, are preferably formed from flexible materials and these materials, in most uses, are also preferably of waterproof characteristics.

One of the distinctive features of my improved cabana frame structure resides in the fact that the back frame structure constitutes the only vertical support for the upper frame or channelled rail, the latter constituting the support for the canopy top and the flexible enclosure. It will, thus, appear that, in the use of the cabana, a substantially free environment is created forwardly of the back frame structure for movement of the occupant, in other words, no post, poles or the like are disposed in this environment. When the seat is employed in conjunction with the cabana, this seat will take up part of the environment in the lower rear corner portion of the enclosure.

It will also be understood that, in the use of the curtain or enclosure 65, the separate part 66 can be adjusted on the supporting rail to provide partial enclosures for the environment in shading the cabana against sun-rays while keeping other portions open for free circulation of air.

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

1. A cabana comprising upper and lower detachably coupled frame parts, a canopy frame pivoted on and collapsibly coupled with the upper part, means coupled with the upper part and said frame for retaining the frame in extended operable position, the lower part having a base frame pivoted to and collapsibly coupled

therewith, means for bracing the lower part on said base frame when the lower part is in upright operable position, the canopy frame and base frame being in substantially parallel relationship when the cabana is in operable position, the canopy frame having means for supporting a canopy thereon, said canopy frame including means movable longitudinally thereof for coupling the major portion of the upper edge of a flexible enclosure therewith, the third named means including brackets fixed to and projecting outwardly from said canopy frame, and ribs coupled with said brackets and joined centrally of the upper portion of the canopy.

2. A cabana comprising upper and lower detachably coupled frame parts, a canopy frame pivoted on and collapsibly coupled with the upper part, means coupled with the upper part and said frame for retaining the frame in extended operable position, the lower part having a base frame pivoted to and collapsibly coupled therewith, means for bracing the lower part on said base frame when the lower part is in upright operable position, the canopy frame and base frame being in substantially parallel relationship when the cabana is in operable position, the canopy frame having means for

supporting a canopy thereon, said canopy frame including means movable longitudinally thereof for coupling the major portion of the upper edge of a flexible enclosure therewith, a seat part pivotally coupled directly with the lower part and said base frame and collapsible with said lower part, said seat part including side armrest portions pivoted with said lower part, the seat part including a seat frame having interlaced webbings thereon, and said lower part including back supporting webbings.

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