PORTABLE, FOLDABLE AND ROLLABLE CABANA

FIG. 2.

FIG. 1.

FIG. 3.

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PORTABLE, FOLDABLE AND ROLLABLE CABANA

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This invention relates to a portable, foldable and rollable cabana and has for an object to provide a cabana especially intended for temporary use on a sandy beach or other outdoor area, and which is easily folded up for carrying by hand or in a car.

A further object of this invention is to provide an improved foldable portable cabana which can be folded or rolled into a neat light-weight package approximately four feet in length and about eight inches in diameter, and thus is of such a size that it can fit along the back shelf of a car or automobile without substantially obstructing the rear view, yet when it is set up on the beach or other outdoor area it is approximately eight feet long and three feet wide, thus making it comfortable for four people to sit under it at one time or for two people to lie under it.

Yet a further object of this invention is to provide a cabana that can be quickly and easily put in position to provide protection from sun, wind and sand, that will give substantially more protection than the average beach umbrella and is much less clumsy to handle than the average beach umbrella.

Briefly, it is an object of this invention to provide a foldable, portable cabana which when set up will provide a roof and side and back walls leaving the front open so that several persons may relax thereunder and enjoy the view through the open front without being exposed to sun, wind, or blowing sand. The cabana itself consists generally of a flexible or fabric roof, rear wall, and side walls, with supporting uprights extending along the front and rear ends of each of the two side walls and an additional upright extending along the mid-line of the rear wall, with roof supporting beams hinged to the uprights and held in roof supporting position by a card table type of toggle bracket with the free ends of the supporting beams abutting either one another or abutting an upright so as to provide a skeleton framework supporting the fabric of the roof and side walls, with tie members adjacent the front edge of the roof for tying the roof to the beams should the wind be blowing in the direction of the front of the cabana, and also with a handle and tie strap secured to the back wall to the mid-line upright so that after the cabana has been folded and rolled up, the tie straps will tie it into a bundle approximately eight inches in diameter and four feet more or less in length so that it may be easily carried by hand or in an automobile.

With the foregoing and other objects in view, as will hereinafter become apparent, this invention comprises the combinations, constructions, and arrangements of parts hereinafter disclosed, set forth, claimed and illustrated in the accompanying drawing wherein:

Fig. 1 is a front perspective view of the cabana of this invention in operative position.

Fig. 2 is a top plan view of the roof of the cabana.

Fig. 3 is a perspective view looking inwardly and upwardly of the shelter material of the cabana.

Fig. 4 is a perspective exploded view of the skeleton frame of the cabana.

Fig. 5 is a perspective fragmentary detail view of the two rear abutting beam ends and intermediate upright.

Fig. 6 is a schematic type perspective view showing the first procedure in collapsing the cabana.

Fig. 7 is a top plan schematic view showing the second procedure.

Fig. 8 is a schematic side elevational view showing the third or the roll-up procedure.

Fig. 9 is a perspective view of the cabana rolled up and fastened for easy portability.

There is shown at 10 the portable, foldable or collapsible cabana of this invention set up on a beach or other outdoor area in useable position in Fig. 1. This cabana 10 consists generally of flexible fabric material 12 shown in detached view in Fig. 3, the material being of any suitable type such as canvas, awning material, or any synthetic or natural fabric or plastic material capable of providing shelter against sun, wind, or blowing sand. This flexible shelter fabric material 12 is generally supported on a skeleton frame shown in exploded perspective position in Fig. 4. As shown, the cabana shelter material 12 includes a roof portion 16 having a generally straight front edge 18, a straight parallel rear edge 20 and angular side edges 22 and 24 which converge toward the rear edge 20 as shown, the front edge 18 thus being somewhat longer than the rear edge 20. Depending from the front edge 18 is a decorative fringe 26, and it is obvious that the fringe 26, while shown as a short decorative fringe, could be made long enough and heavy enough to extend all the way to the ground or beach 28 and thus provide a degree more or less of privacy within the cabana 10 if desired.

Depending from the rear roof edge 20 is a rear vertical wall 30 and depending from the side edge 22 is a side wall 32 and similarly depending from the roof side edge 24 is a side vertical wall 34. The roof 16, back wall 30 and side walls 32 and 34 may each be made of separate pieces of material joined along their edges, it being obvious that if desired that the roof and side walls could be made from a single piece of material appropriately cut so that it needs to be sewed or fastened only along the roof end edges 22 and 24.

The skeleton frame 14 consists principally of five substantially identical supporting uprights, the uprights being generally and preferably made of hollow tubular metal, the uprights consisting generally of the two front uprights 36 and 38, the two rear uprights 40 and 42 which extend along the rear end of the side walls 32 and 34, and a rear mid-line upright 44 extending along the vertical mid-line of the rear wall portion 30. Each upright is substantially identical, being provided with a lower sharpened point 46 for readily penetrating the sandy beach as at 28, and being of hollow tubular metal for lightness in weight, is permanently closed at the top by a plug 48 welded or otherwise securely therein. These uprights from 36 to 44 are preferably made of aluminium or steel, although obviously they could likewise be made of wood or rigid plastic material or any other suitable lightweight material having the requisite strength.

The skeleton frame 14 also includes seven roof supporting beams 50, 52, 54, 56, 58, and 60 all of which serve to support an edge of the roof 16 and the seventh beam 62 serving to support the mid-line of the roof 16. Each of the front uprights 36 and 38 have two of the
roof edge supporting beams pivotally hinged thereto and foldably supported by card table type toggle brackets. The upright 36 has the two roof edge supporting beams 56 and 58 hinged thereto by pivots 64, the two pivots 64 being spaced appropriately about the top end of the upright 36. Card table type toggle brackets 66 are pivotally riveted to the beams 50 and 54 and to the upright 36 at an appropriate distance from its hinging edge, whereby the beams 50 and 54 when supported by the toggle brackets 66 extend in a plane at right angles to the direction of the upright 36, and when the toggle brackets 66 are folded, both beams 50 and 54 extend substantially parallel to the upright 36.

The angle between the pivot rivets 64 on upright 36 will be 90° only if the roof 16 had side walls extending perpendicular to the rear wall, but in view of the angle between the side and front beams being slightly less than 90°, the pivots 64 will be fastened at an appropriate angle.

The other front beam 52 and the other side beam 56 is similarly pivoted or hinged to the upper end of upright 38 and foldably secured in position therewith by identical card table type toggle brackets or hinges 66.

The left rear upright 40 has the left rear beam 58 identically mounted thereon by its toggle type hinge or bracket 66, and the same is true of the right rear upright 42 and the right rear beam 60 and its hinge or bracket 66. The mid-line rear upright 44 likewise has the mid-line roof supporting beam 62 hinged thereto by an identical toggle hinge or bracket 66. Each of the roof supporting beams 50 to 62 inclusive, being made preferably of angle bar metal such as aluminum, stainless steel or other suitable material has one leg of the angle cut away adjacent its hinging end as at 68 thus permitting the beam to fold down and have the angle between its legs partially embrace the upright when in folded position, thus extending substantially parallel thereto when in folded position.

As shown in detail in Fig. 5, the free end of the left rear and right rear beams 58 and 60 are curvilinear as at 70 complementary to the circumstance of the upright 44 so that when supported in horizontal position by their toggle hinges or brackets 66, the curvilinear edges 70 will abut in frictional engagement with opposite sides of the rear mid-line upright 44 at its top end.

The free ends of the side beams 54 and 56 are likewise curvilinear as at 70 so that they may abut in frictional contact with the rear left and right uprights 40 and 42. The free ends of the front left and right beams 50 and 52 and the of the roof mid-line beam 62 are generally straight as at 72 it being generally intended that the free ends of beams 50 and 52 will abut each other while the free end of mid-line beam 62 will abut within the angle of the beams 50 and 52 in abutting relation with the free end of both front beams.

The flexible fabric shelter material 12 is secured only to the five uprights 36, 38, 40, 42 and 44 of the skeleton framework 14, being secured thereto by appropriately spaced rivets 74 extending through the fabric and to the uprights, the front ends 76 of the side walls 32 and 34 are being rolled around the front uprights 36 and 38 so as to be more firmly secured thereto by their rivets 74. Secured by appropriate rivets to the rear mid-line upright 44 through the fabric of the rear wall 30 is a carrying handle 78 so that it can be readily engaged by a hand 80, and secured at opposite top and bottom edges of the rear wall 30 through the fabric or at its mid-line or adjacent the same rear mid-line upright 44 are a pair of tie straps 82.

There is also secured to the roof 16 adjacent its front edge 20 at the mid-point and at each end thereof a tie tape 84.

In operation, the cabana 16 is set up on the beach 28 by forcing the sharpened edges 46 of each upright down into the sandy beach at the appropriate distance from each other so that the roof 16 is substantially taut. The uprights are inserted into the ground until the rear and side wall bottom edges approximately touch the ground. Then, each roof supporting beam is pivoted from a position parallel to its upright to a position in a plane horizontal thereto. At this position, the card table type toggle hinge or bracket 66 will hold the beam in horizontal position, and their free ends will abut a adjacent member as already explained. In case there is a wind blowing into the open front of the cabana, then the tie cords 84 may be tied about the front beams and the roof mid-line beam to prevent the roof from buffing away from the supporting beam.

To collapse the cabana for carrying purposes or storage, it is collapsed and then folded or rolled as illustrated in Figs. 6 to 9 inclusive. First, each toggle hinge or bracket 66 is collapsed or folded thus permitting the roof supporting beams to fold down to a position substantially parallel to the uprights to which they are pivoted or hinged, as shown in Fig. 6, the beam 54 being shown in fully folded parallel position against its upright 36 while beam 59 is shown approaching this position. Similarly the beam 56 is shown in fully folded position against its upright 38 while beam 52 is approaching this position. Beams 58 and 60 and 62 are likewise shown as approaching the parallel position to their uprights 40, 44, and 42.

Then, with the beams in parallel position to their hinging uprights, the uprights and all withdrawn from the ground 28, the rear left and right uprights 40 and 42 are moved from the position shown in dotted outline in Fig. 7 to the position shown in full outline in Fig. 7, as shown by the arrows 90 and 92, and similarly the up-rights 36 and 38 are brought to their full line position of Fig. 7 from the dotted line position as shown by arrows 94 and 96, and then laid on the ground as shown in Fig. 8, whereupon the uprights 36 and 38 are rolled as shown by arrow 98 in Fig. 8 so as to roll up the cabana fabric material 12 and form it into a rolled package as shown at 100 in Fig. 9 to be tied in this packaged position by means of the tie strap 82, making the handle 78 readily available to be pressed by a hand 80. In this position, the rolled up cabana 100 may be placed in an automobile in the trunk or even on the shelf in the rear of the car being small enough not to substantially obstruct the rear view through the window and being short enough to fit therein. To use and assemble the cabana in operative position, the above procedure is followed in reverse.

In preferred form, the angle bars are preferably of suitable lightweight metal and so are the vertical uprights, but it is obvious that any suitable material such as wood, rigid plastic, or the like may be used in place of the metal if desired.

Although this invention has been described in considerable detail, such description is intended as being illustrative rather than limiting, since the invention may be variously embodied and the scope of the invention is to be determined as claimed.

Having thus set forth and disclosed the nature of this invention, what is claimed is:

1. A portable and foldable cabana comprising a foldable skeleton supporting frame and a fabric covering providing a roof and a plurality of depending walls, said roof being polygonal in outline, said foldable frame comprising a supporting upright located at least at each angle corner of said roof, each said supporting upright having a wall of said fabric secured thereto, each said supporting upright having a sharp, ground penetrating point at its lower end below its attached fabric wall, and a plurality of fabric roof supporting front, rear and end beams, each front, rear and end beam being hinged, at one end only, to the upper end of its respective upright, the opposite end of each beam being free from attachment means, said front beams and said rear beams being spaced apart from each other by said end beams, there being two beams at the front of said cabana and two beams at the rear, the indi-
individual beams of said front beams being in alignment with each other and the individual beams of said rear beams being in alignment with each other, their free ends being in abutting relation, a foldable toggle bracket extending between each upright and its respective hinged beam adjacent to its respective hinged end for holding said beams in roof supporting position or for permitting each said beam to be folded away from roof supporting position into substantial parallelism with its respective hinged supporting upright.

2. The cabana of claim 1, said cabana having two end side walls and a rear fabric wall, the front of said cabana being open, and a fifth upright at the mid-line of said rear wall, said fifth upright having a roof supporting beam extendable forwardly therefrom to the front into abutting relation with each of the roof edge supporting beams extending along the front of the cabana.

3. The cabana of claim 2, said fabric covering being permanently secured only to said uprights.

4. The cabana of claim 2, a handle secured to said rear wall mid-line upright at the back of said rear wall, and the straps attached at opposite ends of said same mid-line upright for fastening and carrying said cabana in folded position.

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