

July 29, 1924.

1,502,898

F. O. BERG

TENT

Filed Jan. 12, 1924

2 Sheets-Sheet 1

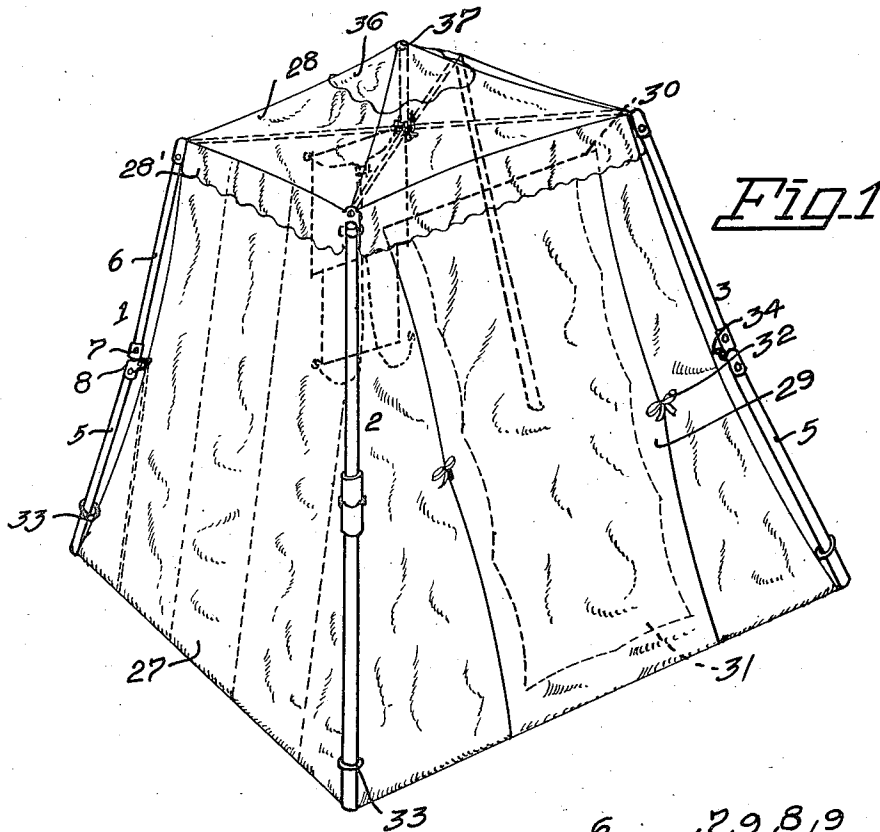


Fig. 1

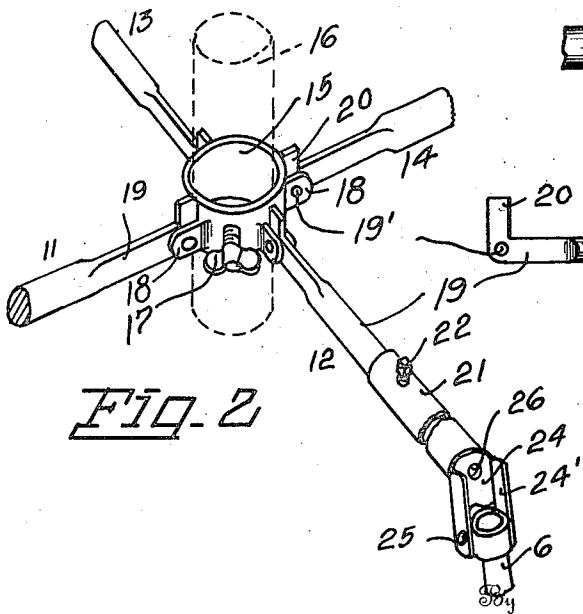


Fig. 2

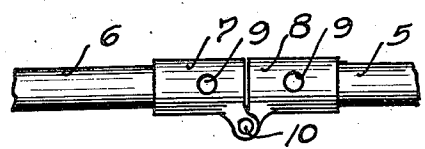


Fig. 3

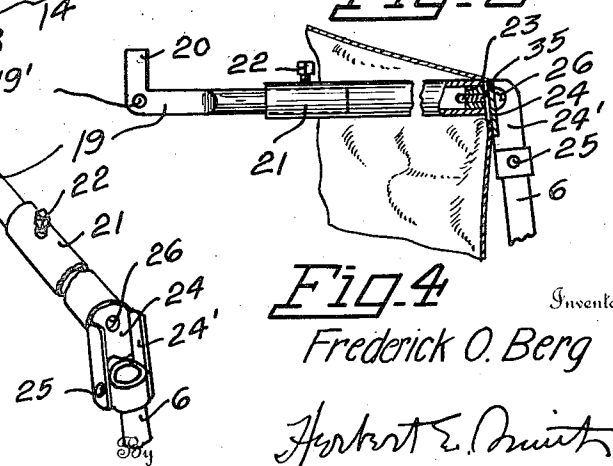


Fig. 4

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2 Sheets-Sheet 2

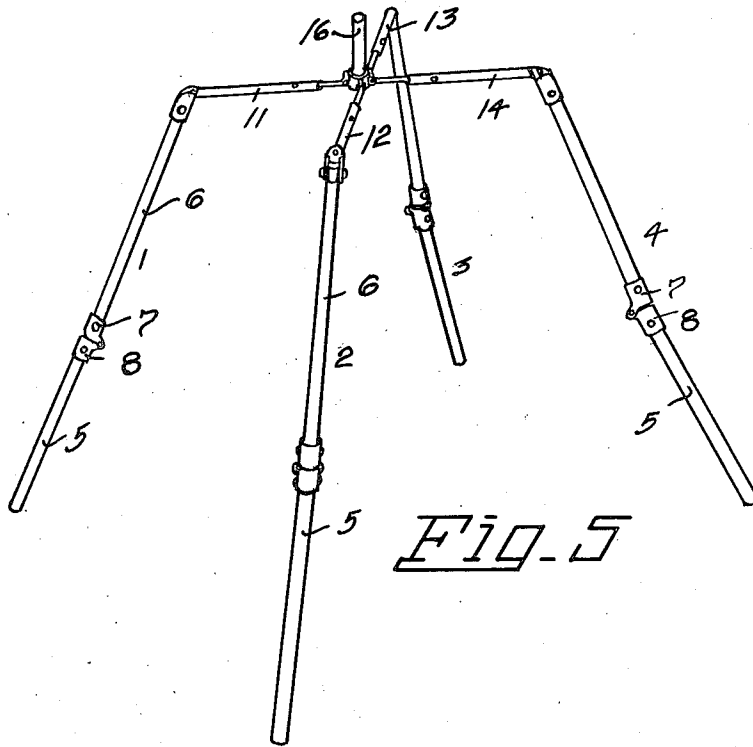


Fig. 5

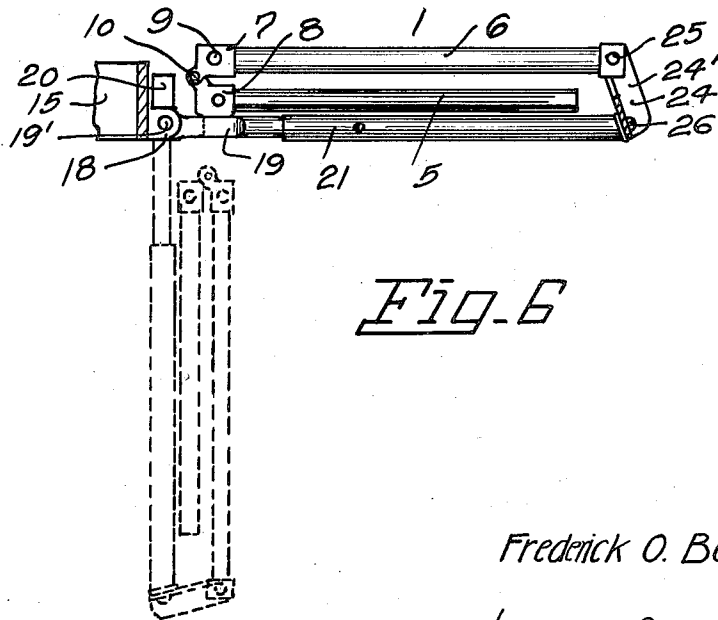


Fig. 6

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UNITED STATES PATENT OFFICE.

FREDERICK O. BERG, OF SPOKANE, WASHINGTON.

TENT.

REISSUED

Application filed January 12, 1924. Serial No. 885,757.

To all whom it may concern:

Be it known that I, FREDERICK O. BERG, a citizen of the United States, residing at Spokane, in Spokane County and State of Washington, have invented certain new and useful Improvements in Tents, of which the following is a specification.

My present invention relates to improvements in tents of the umbrella type, and is particularly designed for use by tourists and others as part of a camp equipment where the ability to fold and pack the tent and its frame into small compass is necessary. The foldable frame and walls of the tent are so combined and arranged as to facilitate the erection of the tent with an interior space from which poles or posts are eliminated thus affording a maximum space for commodious use and accommodations, and a well braced and self-sustaining structure is provided. When dismantled the walls and frame of the tent are retained in connected relation and are capable of being folded and wrapped into a single compact bundle which may then be placed in a storage bag or receptacle for transportation, as upon an automobile.

The invention consists in certain novel combinations and arrangements of parts as will hereinafter be more specifically pointed out and claimed.

In the accompanying drawings I have illustrated one complete example in the physical embodiment of my invention in which the parts are combined and arranged in accordance with the best mode I have thus far devised for the practical application of the principles of my invention.

Figure 1 is a perspective view of a tent embodying the features of my invention showing the exterior corner posts and in dotted lines illustrating the interior top frame for the tent.

Figure 2 is an enlarged detail perspective view of a portion of the interior top frame.

Figure 3 is a detail view showing one of the hinged knuckle joints between two sections of one of the exterior corner posts.

Figure 4 is a detail view partly in section showing the swivel connection between a corner post and top frame as well as a pivot joint between the upper section of a post and the swivel bracket.

Figure 5 is an assembly view in perspec-

tive of the entire supporting structure for the tent.

Figure 6 is a detail view showing one sectional post folded upon a frame bar as for storing and illustrating in dotted lines the method of folding these elements.

The tent is shaped with a rectangular base and top and tapers upwardly, the four exterior posts 1, 2, 3, 4, being disposed on converging lines when the tent is erected as in Figure 1 and in Figure 5 wherein the frame is illustrated. Each of these four exterior posts is made up of sections as 5 for the leg portion resting upon the ground and 6 the upper section, and the adjoining ends of these post-sections are provided with sleeves or joint-ends 7 and 8 secured to their respective members by pins 9. These joint ends are provided with an offset hinge joint 10 in order that the adjoining ends of the post sections may squarely abut as in Figure 3 to form a knuckle joint. Thus when the sections are aligned as in Figures 1, 3 and 5 the sections form a continuous post, while in Figure 6 where the sections are folded together, the knuckle joint permits the sections to be folded into parallelism as indicated.

At their upper ends the corner posts are rigidly connected by a horizontally disposed cruciform frame composed of diagonally arranged frame bars 11, 12, 13, and 14, all of which are extended inwardly toward a central bushing 15 in which a center pole of comparatively short length or height as indicated at 16 is retained by a set bolt or screw 17. When the tent is to be erected this center pole is extended upwardly from the bushing and secured by the set screw 17, but when the parts are to be bundled or wrapped, this pole is slipped downwardly in the bushing, (after loosening the screw 17) and then may be secured in this retracted position by tightening the screw. Thus the pole when the tent is erected provides means for a slanting roof and when the tent is dismantled the pole is capable of being positioned in such manner as to reduce the size or length of the wrapped bundle.

The bushing 15 forms the key member for the supporting structure of the tent, and it is fashioned with four pairs of diametrically arranged, perforated ears 18 on

its exterior surface, in which the four pivot bars 19 are pivoted at 19'. Each of these pivot bars at its inner end is fashioned with an angular lug 20, which as seen in Figure 2 rests flat against the central bushing 15 to sustain the tent against collapsing. The pivot bar of each of the top-frame bars telescopes within the open end of a pipe section 21 of the top-frame bar, and a set bolt 22 is utilized to hold the pipe section or tubular bar 21 and the pivot bar 19 in adjusted position, as best seen in Figure 4.

At the outer end of each of the tubular sections of the frame bars a plug 23 is secured, to which a swivel-bracket 24 is secured. The swivel bracket is carried at the upper end of a post section 6 to which it is pivoted on pin 25 and the bracket is swiveled in the plug by means of a screw or bolt 26. The bracket as best seen in Figure 2 is fashioned with side plates 24' through which the pivot pin 25 passes and these plates it will be seen, while they permit the post section 6 to be swung around parallel with the section 5 when the tent is to be packed, also hold the post against lateral displacement when the tent is erected.

It will be seen in Figure 6 that the joint between the post sections 5 and 6 and the joint between the post-sections 6 and top frame-bar sections 21 permit the posts and top frame bars to be compactly folded together and arranged for storing, and the telescopic relation between the pivot bars 19 and tubular sections 21 of the top frame-bars also permits of a close arrangement of parts for storing. After the four posts have been folded over on the top frame bars and these frame bars compacted as in Figure 6, these four folded devices are swung on the pivots 19' to the dotted position indicated in Figure 6, the folded devices being then in the same plane as the longitudinal axis of the bushing 15 to form a compact bundle.

In the performance of erecting the tent, these folded devices are unfolded, the four posts properly positioned and spaced apart, and the walls 27 of the tent assume shape as indicated in Figure 1. In addition to the four walls the tent is fashioned with a top 28 and overhanging edges 28', which extend down over the upper ends of the tent walls as a shield and protection, and a door flap 29 of rectangular shape is stitched at 30 beneath one of these overhanging portions 28'. The door flap is of sufficient area to cover the door opening 31 shown in dotted lines in Figure 1 as a cut-out in one of the tent walls, and its free side edges are secured as by ties or cords 32 to suitable fastening devices properly located on the exterior of the tent wall.

The four walls of the tent are preferably fashioned and then stitched together to

cated within the frame formed by the four exterior posts and cord loops 33 secured at the corners of the tent body are slipped over the posts as indicated to support the tent walls within the structure formed by the posts. Thus all supporting members are eliminated from the space usually occupied within the tent. Additional cords or ties 34 are used at the knuckle joints in the posts for fastening the tent walls thereto, and at the tops of the posts the tent is supported as by a grommet 35 through which the screw or bolt 26 passes. The top 28 of the tent has a shield or protector 36 which is fashioned with a central grommet 37 fitting over the center post 16. Thus the top-frame of the tent is enclosed within the space at the top of the tent and the bars of the frame may be utilized for suspending articles as desired for the convenience of the tent-dwellers.

By inclining the four posts on converging lines it will be apparent that the offset hinges of the knuckle joints, which are located at the inner sides of the four posts when the tent is erected, not only permit the weight of the load to be borne through the squarely abutting ends of the joint, but this location of the hinge joint eliminates the possibility of the post buckling. The loops and ties that bind the tent body to the posts hold the body of the tent in properly stretched condition and maintain the walls in taut position.

The use of the telescopic sectional bars of the top frame permit of adjustment of the frame to adapt it to the size of the tent body as originally made, and this adjustment may be taken up, if required, to compensate for stretching or shrinkage of the tent from use.

By combining the tent body with the tent frame members the two elements may be compactly folded together and then bundled into a suitable bag or receptacle for the purpose, and this may be accomplished with facility and without the necessity for skilled or expert attention, thus rendering the apparatus a convenient and desirable outfit or equipment for the performance of its required functions.

Having thus fully described my invention, what I claim and desire to secure by Letters Patent is—

1. In a tent, the combination with foldable posts and a top frame comprising a central key-member and radiating bars pivoted thereto, of a bracket between each post and its complementary radiating bar, said bracket having a pivotal connection to one member and a swiveled connection with the other member.

2. In a tent the combination with a plurality of foldable posts and a top frame comprising a central bushing having pairs

having angular lugs pivoted in said ears, and a bracket between each post and its complementary radiating bars having a swivel joint with one member and a pivoted joint
5 with the other member.

3. In a tent the combination with a plurality of foldable posts, of a top frame comprising a central key member having pairs of perforated ears and frame bars having
10 perforated lugs pivoted in said ears, telescopic sections forming extensions of said frame bars, and a bracket between each post and its complementary telescopic section having a swivel joint with one member and a
15 pivoted joint with the other member.

4. The combination with four foldable posts, of a central bushing and an adjustable post therein, pairs of perforated ears on said bushing and angular radiating bars pivoted in said ears, adjustable, telescopic bars
20 forming extensions of the radiating bars, a bracket between each post and its complementary extension, and said bracket having a swivel joint with its post section and a
25 pivoted joint on its complementary extension.

In testimony whereof I affix my signature.

FREDERICK O. BERG.