Feb. 5, 1929. 1,701,428

F. SNOUFFER

PORTABLE TENT

Filed May 26, 1927 2 Sheets-Sheet 1

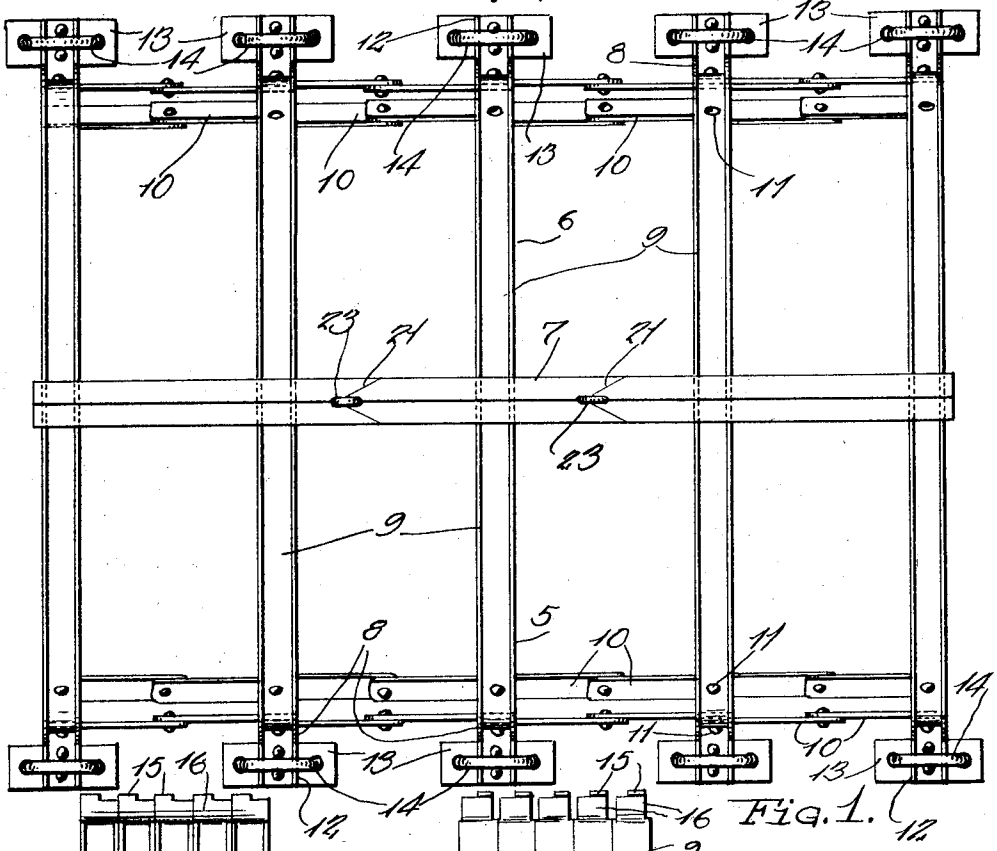


Fig. 1.

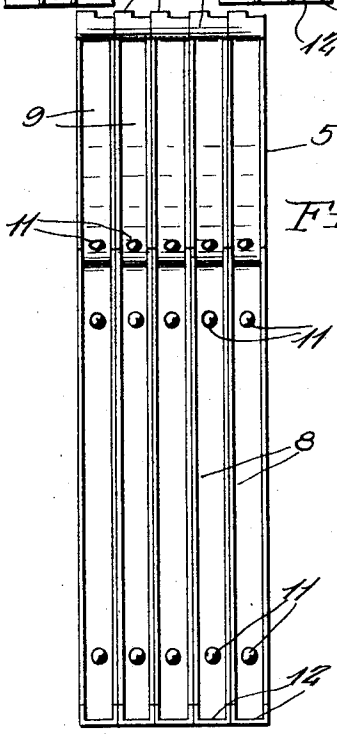


Fig. 2.

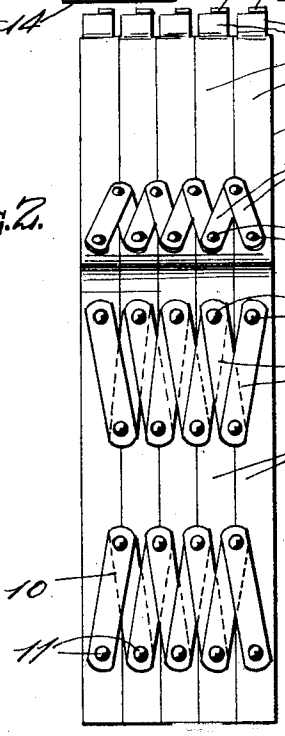


Fig. 3.

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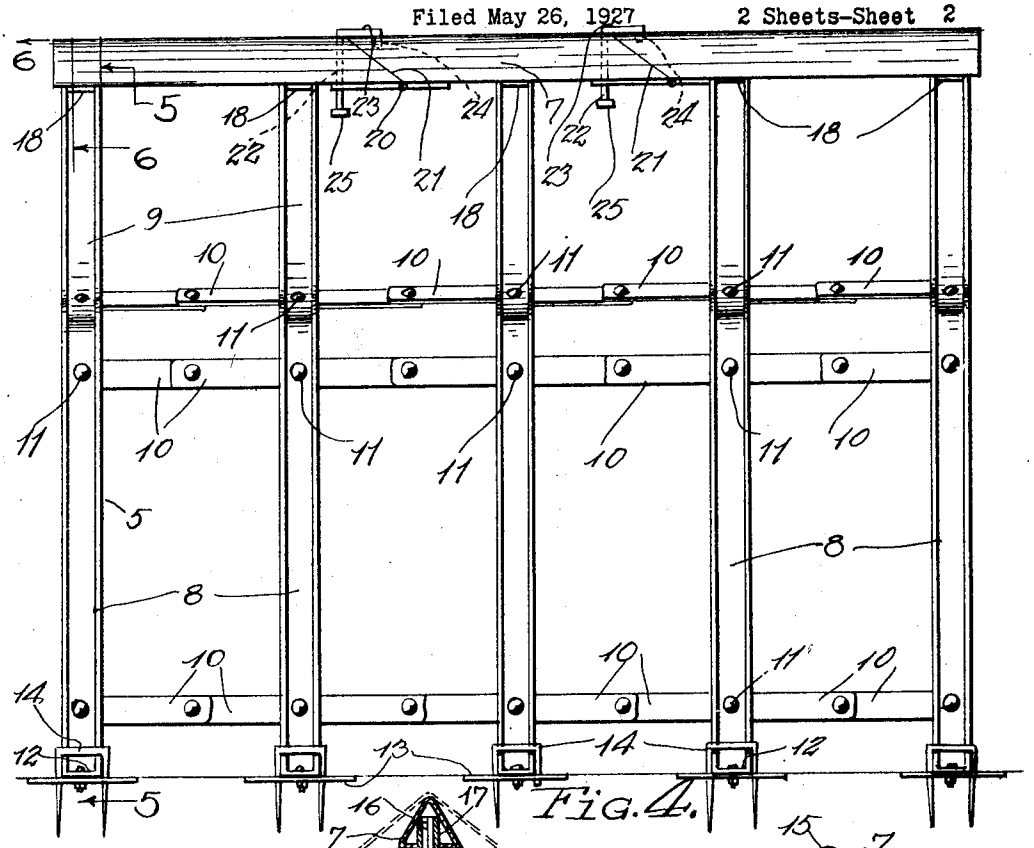


Fig. 4.

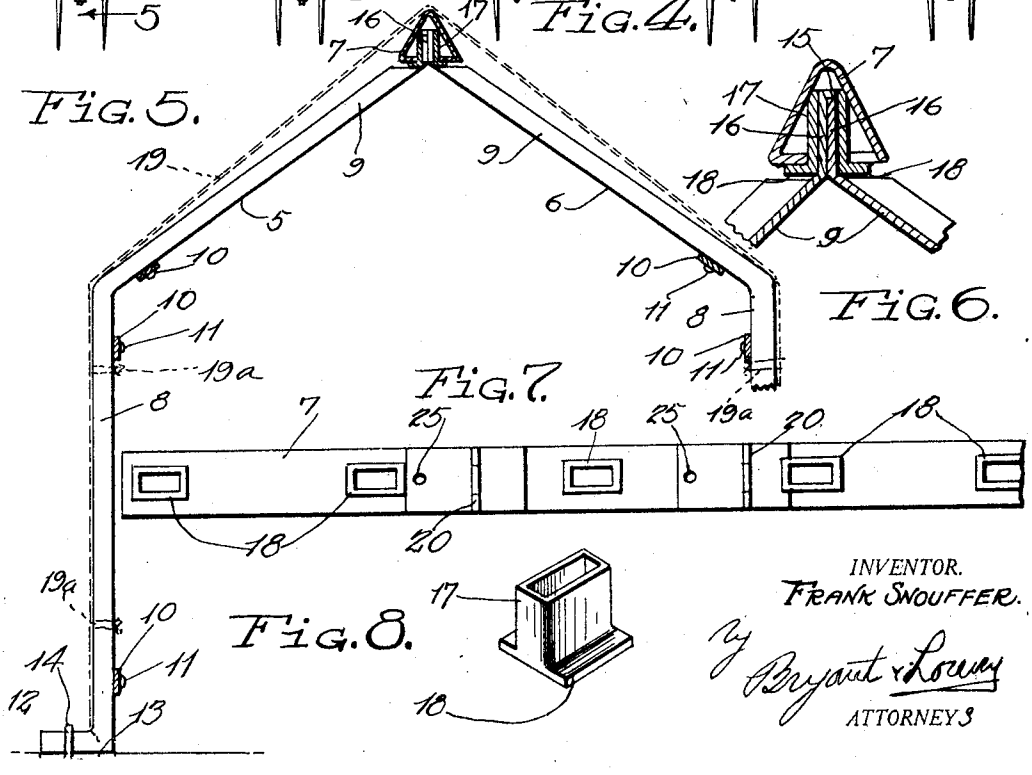


Fig. 5.

Fig. 6.

Fig. 7.

Fig. 8.

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UNITED STATES PATENT OFFICE.

FRANK SNOUFFER, OF CEDAR RAPIDS, IOWA.

PORTABLE TENT.

Application filed May 26, 1927. Serial No. 194,367.

This invention relates to portable tents, and has more particular reference to an improved knock-down and collapsible tent frame.

The primary object of the invention is to provide a tent frame of the above kind which is simple and durable in construction, capable of being readily set up or knocked down, and adapted to reliably remain in set up condition when in use.

A more specific object is to provide a tent frame of the above kind embodying a minimum number of separable parts or sections, which may be extended and assembled with maximum facility and ease, as well as disassembled and collapsed with like convenience.

A further object is to provide a tent frame of the above kind which is comparatively inexpensive in manufacture, and which may be knocked down and collapsed into such compact form as to be readily stored and transported.

Still another object is to provide simple and improved means for effectively anchoring the frame to the ground.

Other objects will appear as the nature of the invention is better understood, and the same consists in the novel form, combination and arrangement of parts hereinafter more fully described, shown in the accompanying drawings and claimed.

In the drawing, wherein like reference characters indicate corresponding parts throughout the several views,

Figure 1 is a top plan view of a tent frame constructed in accordance with the present invention and in set up condition;

Figure 2 is an outer side view of one of the collapsible side units of the tent frame shown in Figure 1, in collapsed condition;

Figure 3 is an inner side view of the device shown in Figure 2;

Figure 4 is a side elevation of the set up tent frame shown in Figure 1;

Figure 5 is a transverse section taken substantially upon line 5—5 of Figure 4, and partly broken away;

Figure 6 is an enlarged fragmentary detail section taken substantially upon line 6—6 of Figure 4;

Figure 7 is a bottom plan view of the ridge pole in unfolded condition, partly broken away; and

Figure 8 is an enlarged perspective view of one of the bushings of the ridge pole.

Referring more in detail to the drawings, the present tent frame broadly embodies a pair of similar collapsible side units 5 and 6, and a foldable ridge pole 7 adapted to engage said side units 5 and 6 when in expanded or unfolded condition to retain them in set up relation.

Each collapsible side unit consists of a plurality of parallel uprights or posts 8 having integral rafter-forming extensions 9 on and projecting upwardly and inwardly from their upper ends, and extensible connections 10 between the posts for permitting them to be brought together in adjacent compact relation or separated to proper spaced relation for cooperation with the ridge pole. As shown, the posts 8 are preferably permanently connected by these extensible connections 10, and the latter preferably are of a foldable nature and composed of pairs of pivotally connected links hinged as at 11 upon horizontal transverse axes to the inner sides of the posts for folding in planes parallel with the portions of the posts to which they are connected. As shown, a plurality of the foldable connections 10 are preferably provided between the upright lower portions of the posts, and further single connections 10 are provided between the rafter-forming extensions 9 near the outer lower ends of the latter.

The posts 8 are preferably formed of channel iron with outwardly directed flanges to combine strength and lightness of weight, and the lower ends of the posts are outturned to form right-angular supporting feet 12 which may be readily anchored to the ground. For this purpose, flat securing plates 13 may be rigidly fastened to the undersides of the feet 12, and staple-like stakes 14 may be driven into the ground so that their intermediate portions overlie the feet 12, the plates 13 having projecting side portions formed with apertures through which the legs of the stake are driven. The securing plates 13 may be permanently riveted to the feet 12, but as shown, they are removably bolted thereto so as to be capable of removal for permitting complete collapsing of the side units as exemplified in Figures 2 and 3.

The free inner ends of each rafter-form-

ing extension 9 is upturned and shorn of its flanges, as well as provided at its end edge with an inwardly directed lateral or horizontal lug 15 located nearer one side edge of said upwardly directed end portion than the other. The upwardly directed flange lift end portions are indicated at 16, and it will be seen that when the side frame units are extended and arranged in set up relation, the upturned end portions 16 of each rafter-forming extension will flatly engage the similar end of an opposed rafter-forming extension of the other side unit, and the lugs 15 of said ends 16 will be disposed in edge to edge relation with the lug of each end 16 overlying the free end edge of the other end 16. In this way, the side units of the frame are effectively restrained against relative vertical displacement so that if the mating end members 16 are held in contiguous relation against lateral separation, the side units of the frame will be effectively held assembled. In order to accomplish the latter function, the ridge pole 7 is provided with a plurality of sockets which open through the underside thereof in position to snugly receive the mating contiguous end portions 16 of the rafter-forming extensions of the posts or uprights. The ridge pole is preferably in the form of a sheet metal tube of triangular cross-section having openings in the bottom wall thereof in which are fitted and suitably secured, the bushings or thimbles 17 forming the socket referred to. As shown more clearly in Figure 6, the thimbles or bushings extend into the ridge pole in engagement with the remaining walls of the latter, and have spaced flanges 18 flatly engaging the under side of the ridge pole and secured to the latter by brazing, welding, riveting or the like.

It is to be understood that the frame is adapted to be provided with the usual canvas or like covering as indicated by dotted lines at 19 in Figure 5, said covering being suitably attached to the posts 8 by means of straps or the like as at 19^a to retain the covering on the frame and at the same time hold the ridge pole 7 onto the mating ends 16 of the extensions 9 so that accidental collapsing or dis-connection of the frame parts is effectively prevented as required under unusual conditions. In view of the above it will be apparent that a tent constructed in accordance with the present invention may be readily set up or knocked down, and that when the tent is set up, the use of the usual guy ropes and stakes is not essential. Moreover, the use of center or other interior poles is rendered unnecessary so that full interior clearance is had for the convenience of the occupant.

In order that the ridge pole may be folded into compact form, it is preferably divided along oblique lines as at 21 into a plurality of sections of substantially similar lengths, the sections being hingedly connected as at 20 by means of leaf hinges or the like. In this way, the unfolding of the ridge pole sections is limited to a point wherein the sections are aligned, the joints breaking upwardly so that the ridge pole will not accidentally fold when in use. In order to guard against undesired folding of the ridge pole sections in case the covering 19 is not applied to the frame, suitable means is provided for latching the ridge pole sections in unfolded operative relation. This may consist of slidable latch bolts 22 extending through the proper ridge pole sections at the hinged joints and having hooked upper ends 23 engageable in the sockets of the adjoining sections of the ridge pole as at 24. Obviously, the latch bolts 22 may have finger pieces at their projecting lower ends as at 25 to facilitate manual upward sliding of the latch bolts for their release.

In use, the side units are expanded to the condition of Figures 1 and 4 and set up so that the ends 16 of opposed rafter extensions 9 are placed in contiguous relation as mentioned above. The ridge pole is then unfolded and latched in such condition, whereupon said ridge pole is applied from above onto the mating ends 16 as shown in the several views. When the covering 19 is subsequently applied and fastened to the posts 8 as mentioned above, it will be seen that the parts are effectively held assembled. The reverse of this operation for effecting knocking down and collapsing of the tent is obvious as well as the fact that the setting up or knocking down and collapsing of the tent may be effected with maximum facility.

Further, there are no numerous separable parts whose selection and proper association is likely to cause delay or confusion in setting up the tent.

Minor changes may be made without departing from the spirit and scope of the invention as claimed.

What I claim as new is:—

1. A knockdown tent frame including a pair of similar separate side units, a ridge pole detachably engageable with said units for holding them in set up relation, said side units being collapsible and each embodying a plurality of posts provided with inwardly projecting rafter-forming extensions on their upper ends, extensible connections between said posts, each rafter-forming extension having an upwardly directed free inner end portion adapted to contact with the similar end portion of the rafter-forming extension of an opposed post, and said ridge pole having sockets opening through the bottom of the same and adapted for snug reception of the respective pairs of said contacting upwardly directed end

portions, said upwardly directed end portions having lateral lugs arranged so that the lug of each end portion of a contacting pair of end portions overlies the end edge of the other end portion of the pair.

2. A knockdown tent frame including a pair of similar separate side units, a ridge pole detachably engageable with said units for holding them in set up relation, said side units being collapsible and each embodying a plurality of posts provided with inwardly projecting rafter-forming extensions on their upper ends, extensible connections between said posts, each rafter-forming extension having an upwardly directed free inner end portion adapted to contact with the similar end portion of the rafter-forming extension of an opposed post, said ridge pole having sockets opening through the bottom of the same and adapted for snug reception of the respective pairs of said contacting upwardly directed end portions, said ridge pole embodying a tubular member of triangular cross-section and provided with bottom openings, and thimbles fitted in the openings and forming said sockets.

In testimony whereof I affix my signature.

FRANK SNOUFFER.