

Jan. 12, 1932.

R. E. SHOAF

1,840,745

CHAPEL TENT FRAME TRUSS

Filed April 27, 1931

2 Sheets-Sheet 1

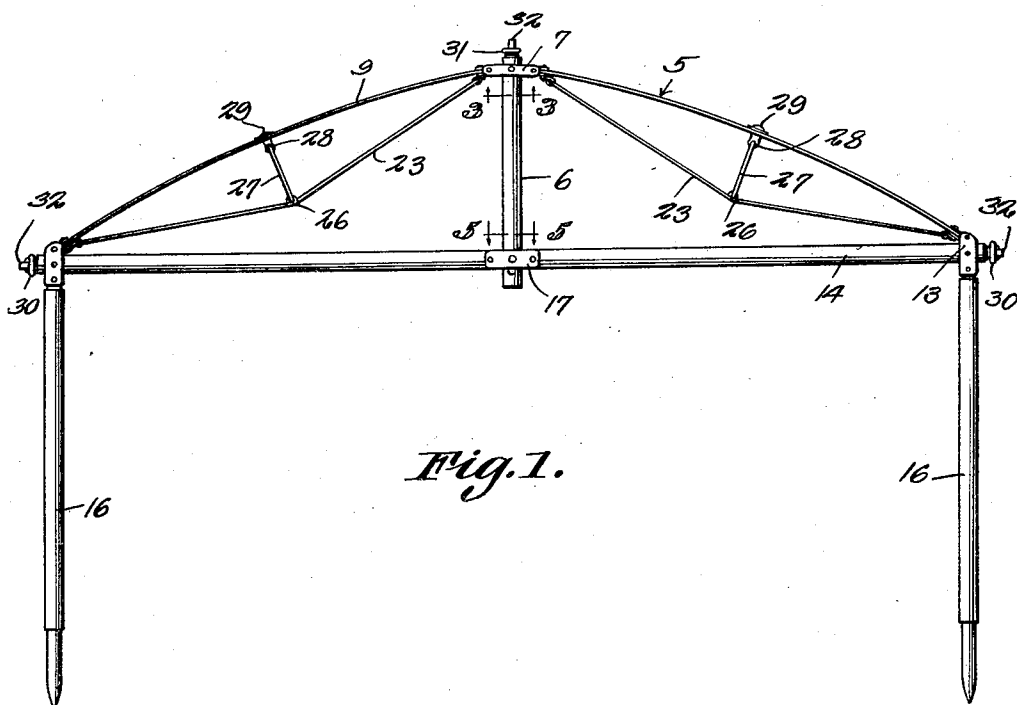


Fig. 1.

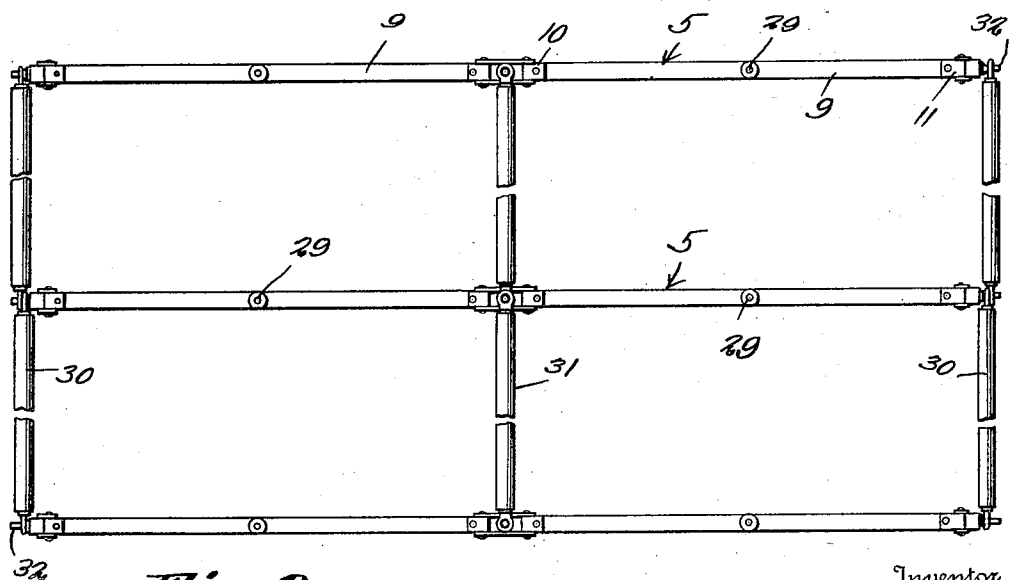


Fig. 2.

Inventor

R. E. Shoaf

By *Chas. H. Snow & Co.*
Attorneys.

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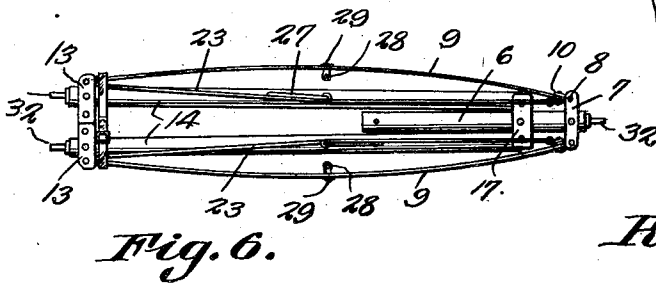
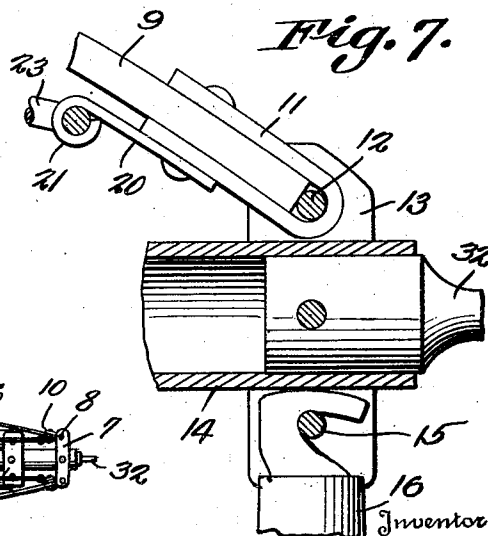
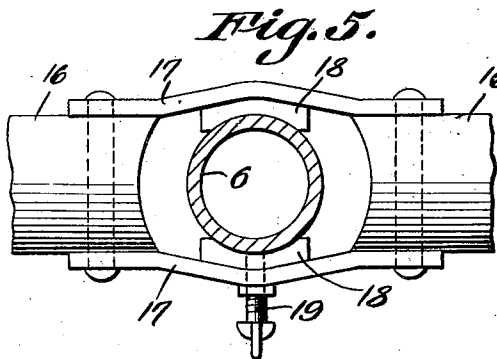
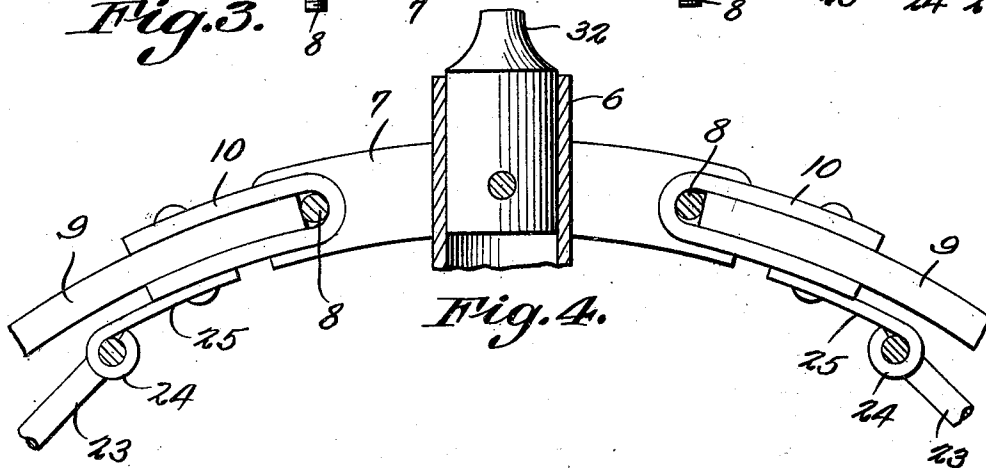
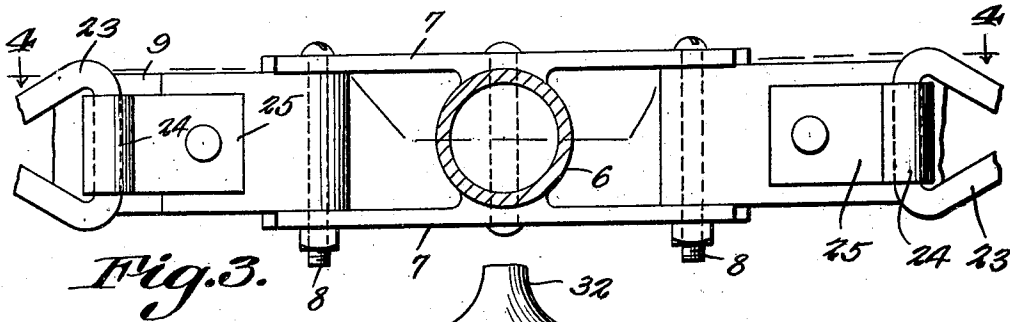
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CHAPEL TENT FRAME TRUSS

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2 Sheets-Sheet 2



R. E. Shoaf

384 *Cashow & Co.*
Attorneys.

UNITED STATES PATENT OFFICE

RUSSELL E. SHOAF, OF COLUMBUS, OHIO

CHAPEL TENT FRAME TRUSS

Application filed April 27, 1931. Serial No. 533,323.

This invention relates to chapel tent frame construction, and more particularly to the truss construction of the roof portion thereof.

The primary object of the invention is to provide a truss of this character which includes flexible roofing members, means being provided for bending or bowing the flexible roof members to give the roof the proper contour common in chapel tent roof construction.

A further object of the invention is the provision of a roof truss embodying pivoted lateral sections and means for bowing the lateral sections independently of each other.

With the foregoing and other objects in view, which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed, may be made within the scope of what is claimed, without departing from the spirit of the invention.

Referring to the drawings:

Figure 1 is a front elevational view of a tent frame constructed in accordance with the invention.

Figure 2 is a plan view thereof.

Figure 3 is an enlarged detail view taken on line 3—3 of Figure 1.

Figure 4 is a sectional view taken on line 4—4 of Figure 3.

Figure 5 is a sectional view taken on line 5—5 of Figure 1.

Figure 6 is a view illustrating one of the roof sections of a chapel tent frame, in its folded condition.

Figure 7 is an enlarged fragmental sectional view illustrating the means for connecting the outer ends of the flexible members of a roof construction, to the outer ends of the rigid bars of the roof construction.

Referring to the drawings in detail, the tent of which the roof sections forming the essence of this invention form a part, are indicated generally by the reference character 5.

Each of these sections embodies a vertical post 6, to the upper end of which the curved

plates 7 are secured, the plates being arranged on opposite sides of the post, as clearly shown by Figure 4 of the drawings. These plates 7 are of lengths to extend appreciable distances beyond the side of the post 6, where they are provided with openings to receive the bolts 8 that act as means to secure the flexible roof bars 9, to be hereinafter more fully described, to the post 6.

These plates 7 are slightly curved, so that they will conform to the curvature of the flexible roof bars 9, to carry out the curved line of the roof section. Metallic straps 10 are secured to the inner ends of the flexible roof bars 9, and provide openings through which the bolts 8 pass in securing the flexible roof bars to the plates 7. The outer ends of the flexible roof bars 9 are also provided with metallic straps 11, that are spaced from the ends of the bars, providing openings to receive the bolts 12 that pass through the plates 13 which are secured to the rigid bars 14, adjacent to the outer ends thereof. The plates 13 extend below the rigid bars 14, where they are connected by bolts 15, the bolts lying in spaced relation with the bars 14, to receive hooks formed at the upper ends of the posts 16, that support the tent in an upright position. At the inner end of the rigid bars 14, are plates 17 that are pivotally connected to the bars 14, the plates 17 being formed with enlargements 18 to engage the side of the post 6 to guide the plates in their movements longitudinally of the post 6. Thus it will be seen that due to this construction, the inner ends of the bars 14 may be moved upwardly to a position adjacent to the plates 7, whereupon the flexible roof bars 9 are moved to positions in parallel relation with the post 6, so that the roof section may be folded into a small and compact article for shipment.

One of the plates 17 is formed with a threaded opening to accommodate the set screw 19, which is adapted to engage the post 6 to hold the plates 17 against movement, after they have been moved to their active positions. At the outer end of each flexible roof bar 9, and secured to the underside thereof, is a strap 20 formed with an eye 21 to receive the lower ends of the truss rods 23,

the opposite ends of the truss rods 23 being extended through the eyes 24 of the straps 25, that are secured to the undersides of the flexible roof bars 9, at the inner ends of the flexible roof bars. These truss rods 23 are formed with loops 26 disposed intermediate their ends, through which loops the hooks 27 extend and are secured, the opposite or hook ends of the hooks 27 being designed to be passed through the eyes 28 of the eye bolts 29. It will of course be understood that these hooks 27 are of lengths to cause the flexible roof bars 9 to bend or bow, to give the proper curvature to the roof of the tent, of which the section forms a part.

When the hooks 27 are disconnected from the eyes of the eye bolts 29, the flexible roof bars will of course return to their normal positions.

In the construction of a chapel tent, these roof sections are connected by means of side bars 30 and ridge bars 31, the ends of the bars 30 and 31 being formed with eyes to accommodate the pins 32, that extend from the ends of the rigid bars 14 and upper ends of the posts 6 of these sections, and due to this construction, it will be obvious that tents of various sizes may be constructed.

I claim:

1. A tent frame including a roof section embodying a central post, bars extending laterally from the post, flexible bars connected to the first mentioned bars, means for connecting the flexible bars to the central post, and means for bowing the flexible bars and holding the flexible bars in their bowed condition.

2. A tent frame including a roof section, embodying a central post, flexible bars connected to the post, rigid bars connected to the post, means for connecting the outer ends of certain of the flexible bars and rigid bars, and means for holding the flexible bars bowed.

3. A tent frame including a roof section embodying a central post, flexible bars pivotally connected to the central post, rigid bars, means for pivotally connecting the outer ends of the rigid bars to the adjacent ends of the flexible bars, means for drawing the ends of the flexible bars toward each other to bow the flexible bars, and means for connecting the rigid bars to the post.

4. A tent frame including a roof section embodying a central post, spaced plates at the upper end of the post, bars constructed of flexible material, pivotally mounted between the plates, pivoted bars constructed of rigid material, means for pivotally connecting the outer ends of the rigid bars and the flexible bars, and means for bowing the flexible bars.

5. A tent frame including a roof section embodying a central post, bars constructed of flexible material, pivotally connected to the post, rigid bars, means for slidably connect-

ing the inner ends of the rigid bars to the post, means for connecting the outer ends of the flexible bars to the rigid bars, and means for bowing the flexible bars.

6. A tent frame including a roof section embodying a central member, roof bars constructed of flexible material, means for connecting the roof bars to the central member, rigid bars, means for pivotally connecting the outer ends of the rigid bars and the outer ends of the flexible roof bars, and means for bowing the roof bars.

7. A tent frame including a roof section embodying a central member, flexible bars, means for pivotally connecting the flexible bars to the central member, rigid bars, means for pivotally connecting the rigid bars and flexible bars, means for mounting the inner ends of the rigid bars on the central member, to allow the inner ends of the rigid bars to slide longitudinally of the central member, and means for bowing the flexible bars.

8. A tent frame including a roof section embodying a central post, flexible roof bars, means for pivotally connecting the flexible roof bars to the central member, a truss rod mounted on each flexible roof bar and secured to the roof bars at the ends thereof, and means between the truss rods and flexible bars for separating the truss rods and flexible bars to bow the flexible bars.

9. A tent frame including a roof section embodying a central post, flexible roof bars, means for pivotally connecting the flexible roof bars to the post, truss rods carried by the flexible bars, each of said truss rods having an eye disposed intermediate its ends, a hook mounted in the eye, eye members carried by the flexible roof bars, and said eye members adapted to receive the free ends of the hooks to separate the truss rods and flexible roof bar, to bow the flexible roof bars.

10. A tent frame including a roof section embodying a central post, flexible roof bars, means for pivotally connecting the flexible roof bars to the post, rigid bars, means for pivotally connecting the outer ends of the flexible roof bars and rigid bars, and means for bowing the flexible roof bars to curve the roof section.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature.

RUSSELL E. SHOAF.