Sept. 6, 1955 A. E. CAMPFIELD ET AL 2,716,992

SUPPORTING MEANS FOR TENTS

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Fig. 1.

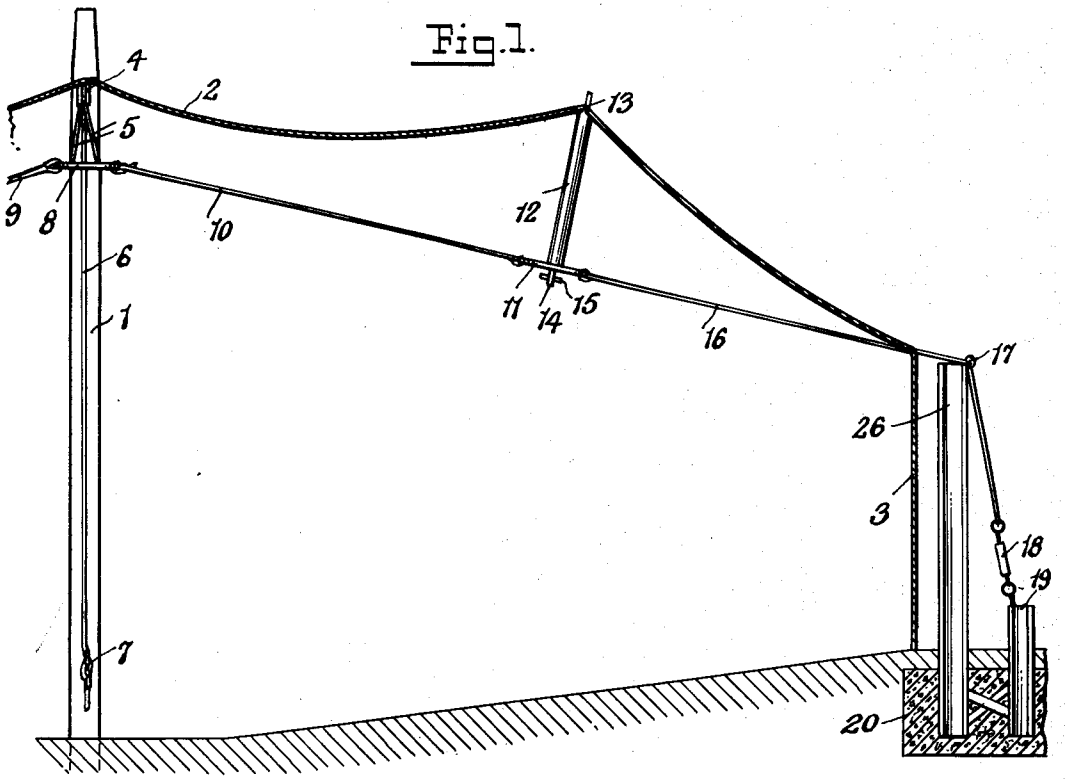


Fig. 2.

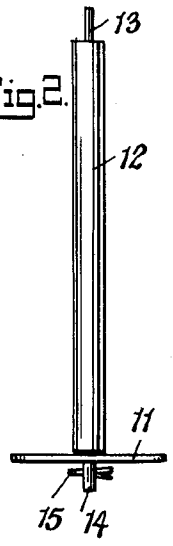


Fig. 3.

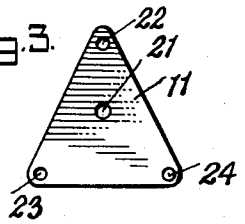


Fig. 4.

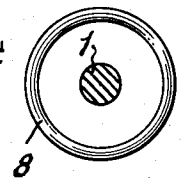


Fig. 5.

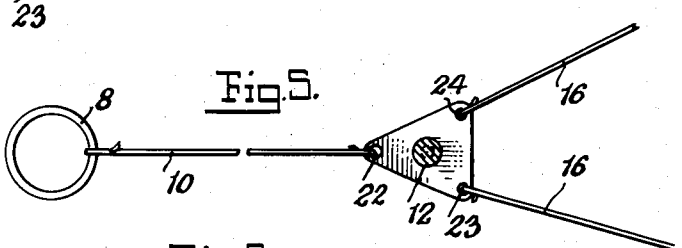
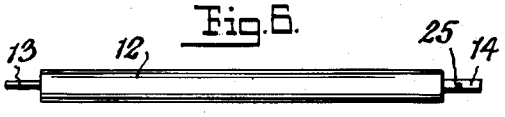


Fig. 6.



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SUPPORTING MEANS FOR TENTS

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Application October 30, 1953, Serial No. 389,403

7 Claims. (Cl. 135—3)

This invention relates to supporting means for tents, and has for one of its objects the provision of means by which a large tent structure will be firmly and securely supported with a minimum of posts, such as are likely to obstruct the vision of persons seated within the tent.

Tents of large size, such as those employed by circuses, carnivals, fairs, music festivals, camp meetings and other gatherings, usually require the use of a substantial number of poles, guy wires therefor, and other elements so positioned that the same seriously interfere with the vision or view of the persons seated in the tent. In the production of a tent of this character, the optimum sought is the use of a minimum number of posts, to thus provide unobstructed vision for the spectators. On the other hand, it is desirable that a large tent of the character mentioned shall have its top rigidly and securely supported. Hence the problem of so supporting the top with a minimum number of vertical supporting posts has always been a vital one.

It is therefore a primary object of the present invention to provide a supporting means in which a minimum number of posts are required. It is another object of the invention to provide a supporting structure which can be easily erected and dismantled. It is still another object of the invention to provide a structure which can be installed in a manner which lends itself to semi-permanent erection of the tent if desired, yet one which can be easily disassembled when required.

More particularly, the invention contemplates the provision of a supporting structure in which a bail ring is adjustably suspended from a tent post and from which a cable extends to a plate at the lower end of a prop that has its upper end disposed against the tent top to elevate and hold the same raised, the plate being further provided with cable supports extending to vertical posts disposed on the outside of the tent. By this arrangement, the prop is held against the tent top in a manner to support the same as is done by a vertical post, yet one which is spaced from and elevated above the ground so that the prop and its cables are out of the line of vision of the spectators.

With these objects and other objects to be hereinafter set forth in view, we have devised the arrangement of parts to be described and more particularly pointed out in the claims appended hereto.

In the accompanying drawing, wherein an illustrative embodiment of the invention is disclosed,

Fig. 1 is a vertical sectional view through portions of a tent, showing the improved supporting means;

Fig. 2 is an elevational view of the prop and plate attached thereto;

Fig. 3 is a plan view of the triangular plate that is located at the lower end of the prop;

Fig. 4 is a plan view of the bail ring, with the center post shown in cross section;

Fig. 5 is a plan view of the bail ring, the plate and the connecting tensioned cables, and

Fig. 6 is a view of the prop.

Referring to the drawing, 1 indicates one of the vertical center poles of the tent. Its lower end rests upon or may be embedded in the ground, or is otherwise firmly planted thereon and the tent top 2 is supported at the upper end of this post or pole in the known manner. The side wall of the tent is shown at 3, and the same may be of known construction.

Surrounding the post 1 and located adjacent to the top of the same and positioned below the tent top 2 is a bail ring 8 which is suspended from a tackle composed of cables 5 guided through one or more pulleys 4 and terminating in the dependent line 6 which is secured on a cleat 7 or other suitable fastening means located adjacent to the lower end of the post 1. By means of the line 6 it will be apparent that the bail ring 8 may be raised or lowered as required, for the purpose to be described.

At 12 is shown the tent prop which consists of a relatively short rigid pole or post, provided at the top with the spindle 13 for engagement through the tent top, and provided at its opposite or lower end with a stem 14 formed with a transverse hole 25 (Fig. 6). Fitted on the stem 14 is a triangular plate 11 that is formed with a central hole 21 which fits about the stem 14. A cotter pin 15, or similar retaining element, extends through the hole 25 in the stem 14 and maintains the plate 11 from displacement. The plate 11 is provided adjacent to its three corners with the holes indicated respectively at 22, 23 and 24. Cables 9 and 10 are secured at one end to the bail ring 8 and the cable 10 has its other end fastened to the plate 11 by being looped through the hole 22 therein.

Two cables, indicated at 16, are respectively secured at one end to the plate 11 by means of the holes 23 and 24 therein.

Located exteriorly of the tent is a plurality of spaced uprights 26, these uprights being preferably, but not necessarily, I-beams having their lower ends firmly anchored in the ground, and in the case of semi-permanent tent erection, embedded in a block of concrete 20 located underground. Each of the cables 16 is extended through eyes 17 or other suitable guiding elements mounted adjacent to the tops of these posts 26, the cables thence extending downwardly for connection to turnbuckles 18 and then to pegs 19 or other suitable anchorages such as short lengths of I-beam embedded in the ground or in the concrete block 20.

From the foregoing, the operation of the improved structure will be readily understood. The cables 10 and 16 are placed under tension by the elevation of the bail ring 8 and by tightening of the turnbuckles 18. The plate 11 acts as a supporting platform beneath the lower end of the prop 12, thus holding the prop in a substantially vertical, but slightly angular position under the tent top to thus support the tent top 2. Since the cables 16 extend divergently and tautly from the plate 11, the plate is thus held against twist or side sway and hence the prop 12 is maintained against swinging or swaying action, and serves for all intents and purposes as a full length vertical supporting post, yet with its lower end terminating high in the air and well above the ground, and out of the line of vision of spectators seated within the tent.

The described means for bracing and supporting the tent is so arranged that the same is easily erected and disassembled when necessary. Yet for permanent or semi-permanent installations, the structure is such that a tent erected by this arrangement will be found strong and weather-resistant under all conditions of use.

While we have herein described a single embodiment of the invention, it is obvious that the same is not to be restricted thereto since various modifications can be made without departing from the spirit of the invention. For example, while the plate 11 is shown in triangular form,

the shape of the same may be varied according to individual requirements; the number of cables extending from the bail ring to the plate, and from the plate to the uprights may be increased and other departures from the illustrated construction may be made as is contemplated by the scope of the claims appended hereto.

What we claim is:

1. A supporting means for tents comprising, a tent-supporting post extending from the ground to the tent peak, a bail ring surrounding said post and adjustably supported from the upper portion of the same, a substantially vertical prop having its upper end supporting a portion of the tent top at a distance from the post, a plate maintained on the lower end of the prop, a tensioned cable extended between the bail ring and the plate, and tensioned cables extending between the plate and supports located outwardly of the prop.

2. A supporting means for tents comprising, a tent post, a bail ring surrounding the same, means for elevating the bail ring relatively to the post tensioned cables extending from the bail ring, a plate to which the outer end of one of the cables is connected, a prop supported on the plate, the upper end of the prop engaging and supporting a part of the tent top, tensioned cables extending outwardly of the plate and posts located externally of the tent and engaging and stressing the last named cables.

3. A supporting means for tents comprising, a tent post, a bail ring surrounding the post, a tent prop located at a distance from the post and having its upper end supporting a part of the top of the tent cover, a plate on the lower end of the prop, an upright at a distance outwardly of the post, a tensioned cable extending from the plate to the upright and a tensioned cable extending from the bail ring to the plate.

4. A supporting means for tents comprising, a tent post, a bail ring surrounding the post below the top, means for adjustably suspending the bail ring from the post, a prop for supporting a portion of the tent at a distance from the post, the lower end of the prop being provided with a plate and being located above the ground and out of the line of vision of tent occupants, an upright located at a distance outwardly of the prop and tensioned cables extending respectively from the plate to the bail ring and from the plate to the upright.

5. A supporting means for tents as provided for in claim 4, wherein the plate is of triangular shape and is maintained on a stem at the lower end of the prop.

6. A supporting means for tents comprising, a tent post extending from the ground to the tent peak, a bail ring hung from the upper portion of the post and below the top of the tent, means for adjustably raising or lowering said bail ring, a prop located at a distance from the bail ring, said prop having its lower end elevated above the ground and its upper end supporting a portion of the top of the tent, a plate fitted on the lower end of the prop, a cable extended from said plate to the bail ring, a plurality of additional cables projecting divergently from the opposite side of the plate, and uprights positioned outwardly of said plate and engaged by said last-mentioned additional cables, all of the cables being maintained under tension.

7. A supporting means as provided for in claim 6, wherein the uprights are located exteriorly of the tent, said uprights having their lower ends embedded in the ground, and adjusting means adjacent to said uprights for tensioning the cables which extend from the uprights to the plate.

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