Nov. 13, 1928.

1,691,411

C. C. ROTH ET AL

TENT

Filed Jan. 19, 1924

2 Sheets-Sheet 1

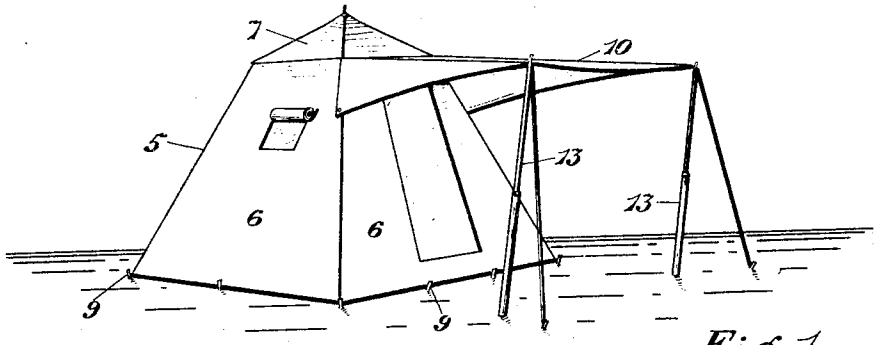

Fig. 1

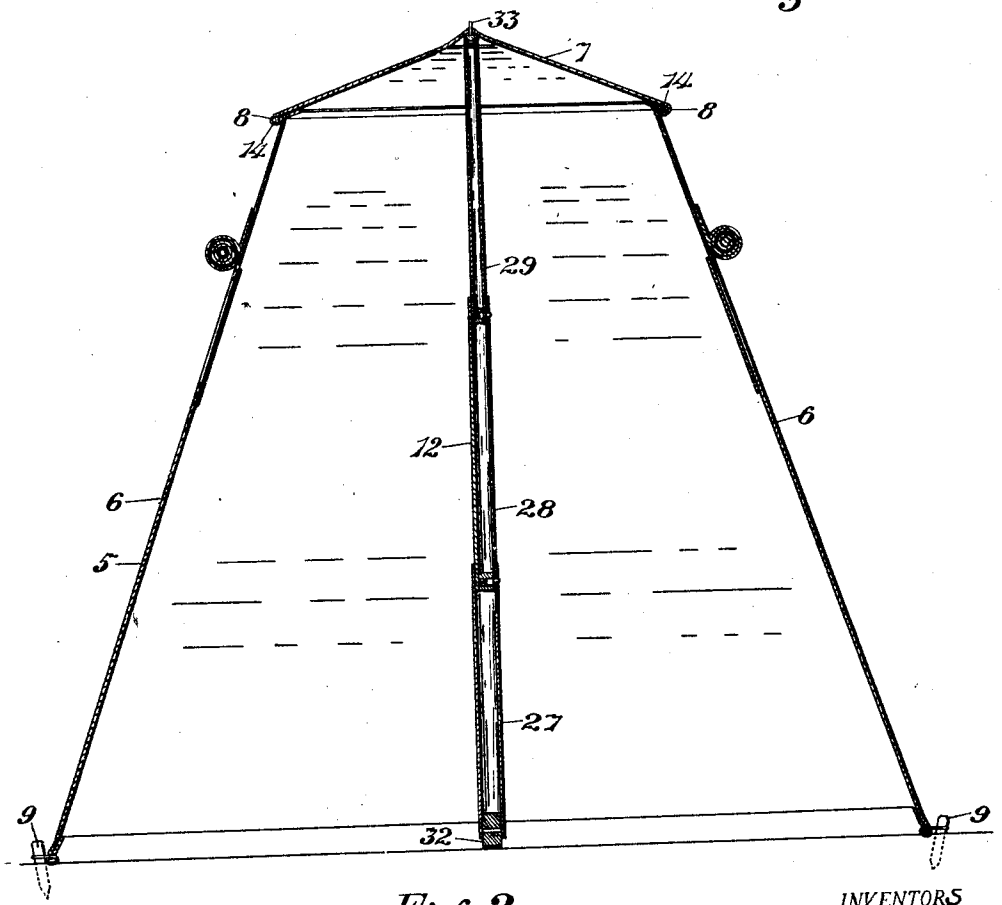

Fig. 2

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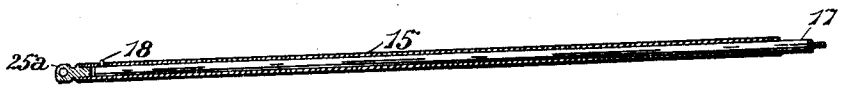

Fig. 4

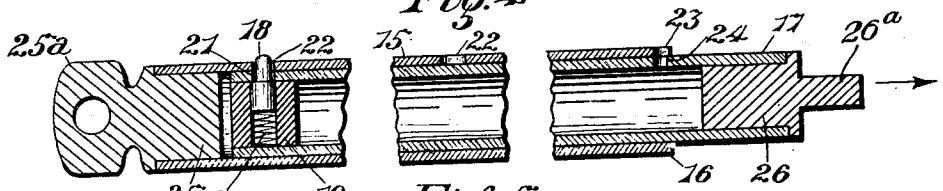

Fig. 5

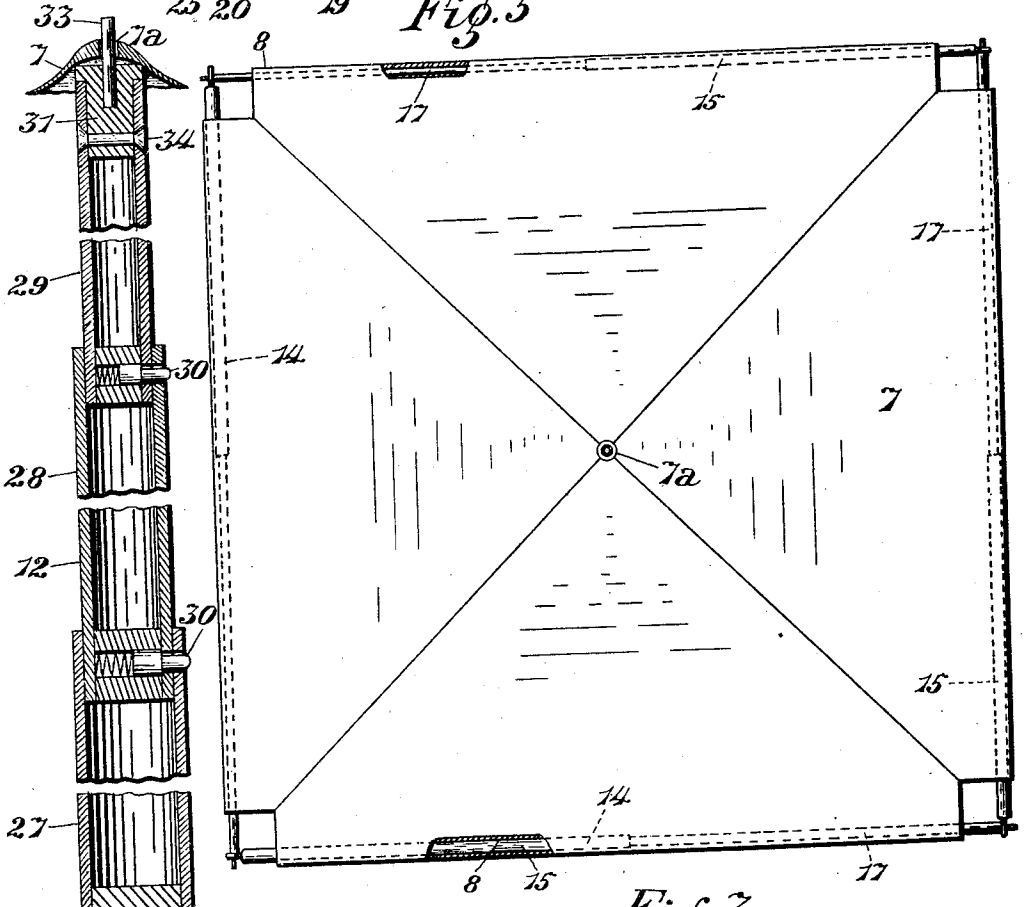

Fig. 6

Fig. 7

Fig. 3

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UNITED STATES PATENT OFFICE.

CHARLES C. ROTH AND DONALD A. CAMPBELL, OF DENVER, COLORADO, ASSIGNORS TO THE DENVER TENT & AWNING COMPANY, OF DENVER, COLORADO, A CORPORATION OF COLORADO.

TENT.

Application filed January 19, 1924. Serial No 687,256.

Our invention relates to portable and collapsible tents of the so-called "palmetto" type in which a single center pole co-operates with a horizontally disposed frame to shape and support the walls and the top of which the tent is composed.

The present invention relates particularly to improvements in the supporting elements of the tent-structure and its primary object resides in providing tent supports of the above stated character formed of telescoping sections which are easily collapsed into compact units when not in use.

Another object of the invention resides in providing a simple and practical method of assembling the members of the frame of the tent in rigid end-to-end connection; a further object is to provide improved means for locking the telescoping sections of the supports in their extended position, and still another object is to provide in connection with the collapsible pole of the tent insulating end pieces adapted to protect the structure against lightning.

With the above and other objects in view all of which will fully appear in the course of the following description, our invention consists in the construction, arrangement and combinations of parts illustrated in the accompanying drawings in which like characters of reference designate corresponding views throughout the several views and in which

Figure 1 represents a perspective view of the tent set up and ready for use;

Figure 2, a vertical section of the tent shown in Figure 1, drawn to an enlarged scale;

Figure 3, an enlarged plan view of the top of the tent;

Figure 4, a sectional elevation of one of the members of which the frame of the tent is composed;

Figure 5, a much enlarged fragmentary section of the same member;

Figure 6, a fragmentary sectional elevation of the pole of the tent; and

Figure 7, a detailed view of the connected ends of two of the members of the frame.

Referring more specifically to the drawings, 5 designates the canvas tent-covering comprising four wall sections 6 connected along their longitudinal edges, and a top section 7 connected to the wall sections at the upper ends thereof.

Sleeves 8 formed along the lines of juncture of the top and wall sections provide for the attachment of the rectangular frame 14 which shapes and strengthens the covering, and the top has a central opening 7^a to receive a pin at the upper end of the pole 12 which supports the structure.

The wall sections of the covering flare outwardly from the top section and they are in practice fastened at their bottom edges by pegs 9 driven into the ground as shown in Figures 1 and 2.

The covering 5 may, if so desired, be equipped with an awning 10 extending over the front wall section of the same as illustrated in Figure 1, and supported by two poles 13 which are likewise composed of telescoping parts.

The supporting frame 14 comprises four members 15 identical in form and construction and each composed of two telescoping tubular sections 16 and 17 which may be nested one within the other for the purpose of storing the frame in compact form.

The sections of the members of the frame are locked in their relative positions by means of a spring-catch on the inner section, which engages in correspondingly formed openings in the outer section.

The catch consists of a headed bolt 18 slidably disposed in a transverse bore of a plug 19 which fits into the end of the inner section of the frame, within the outer section.

A coiled spring 20 in the bore of the plug presses upon the bolt to yieldingly hold it in the position in which its stem projects through an aperture 21 of the section in which the plug is fitted, which registers with the end of the bore.

The aperture 21 is of smaller diameter than the bore with which it is alined and it provides a shoulder which limits the outward movement of the bolt by expansion of its spring, and the bolt in its normal projected position performs the additional function of fastening the plug in which it is mounted, in place in the end of the respective section of the frame member.

The outer section 15 has openings 22 which by engagement with the protruding end of the bolt, fasten the sections of the member in

their contracted or extended positions and in order to facilitate registration of the bolt with the opening 22 of the outer section of the frame member in its extended condition, the outer section is provided with a notch 23 and the inner member has a small aperture 24 which by its position relative to the notch indicates the position of the sections in which the bolt on the one registers with the opening of the other.

The two sections of which each of the frame members is composed, are closed at their outer ends by plugs 25 and 26 which provide the fastening means for assembling the members in end-to-end connection with each other.

The plug 25 has to this end a flattened centrally apertured head 25^a and the other plug 26 has an axially outwardly projecting pin 26^a which fits loosely in the eye formed by the head of the other plug.

In erecting the tent the four members of the frame 14 in their extended condition, are inserted in the sleeves 8 between the top-section and the wall sections of the canvas after which the pin 26^a at the end of each member is inserted in the eye 25^a of the corresponding end of the adjoining member, and the four members thus connected form a rigid rectangular frame to shape and reenforce the covering of the tent-structure.

The tent is centrally supported by the pole 12 which as best shown in Figure 6, consists of three telescoping tubular sections 27, 28 and 29 adapted to be nested one within another when the pole is not in use.

The sections of the pole are fastened in their extended position by spring catches 30 similar to those hereinbefore described with relation to the members of the frame 14.

The terminal sections of the pole are closed at their ends by plugs 31 and 32 made of wood or other non-conducting material.

The plug 31 at the upper end of the pole carries a metal pin 33 projecting axially outwardly for its insertion in the central aperture 7^a of the top of the tent and the plug is fastened by a rivet 34 which is separated from the pin to prevent of its conductive connection with the metal of which the tubular sections of the pole are made.

The plug 32 at the lower end of the pole projects beyond the same and has a substantially flat bottom surface to support the pole upon the ground, and it is fastened to the lower section of the pole by means of a rivet 33 or other suitable means.

It will be apparent that the plugs completely insulate the metal pole from the pin at the upper end thereof and from the ground and thereby prevent the discharge of electricity through the pole in case the pin is struck by lightning.

The construction of the collapsible awning-supports 13 is identical to the hereinabove described construction of the center pole, excepting that they are usually composed of but two telescoping sections.

Having thus described our invention, what we claim and desire to secure by Letters Patent is:

1. A metallic tent pole having electrical insulation at both ends.

2. A hollow metallic tent pole having an electrical insulating plug at each end.

3. In a tent of the character described, a metallic pole, an electrically insulated pin at the upper end of the pole for the attachment of a tent structure, and an electrical insulating support at the lower end of the pole.

In testimony whereof we have affixed our signatures.

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DONALD A. CAMPBELL.