Dec. 22, 1953 F. M. DAVIS 2,663,306

TENT

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Fig. 1.

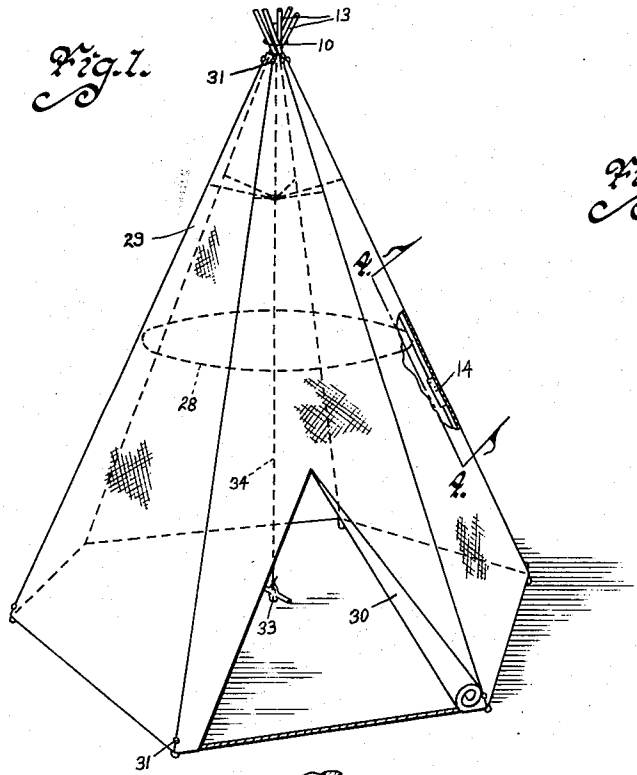


Fig. 2.

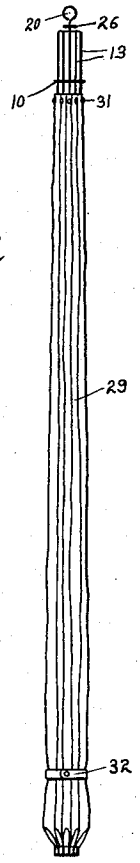


Fig. 3.

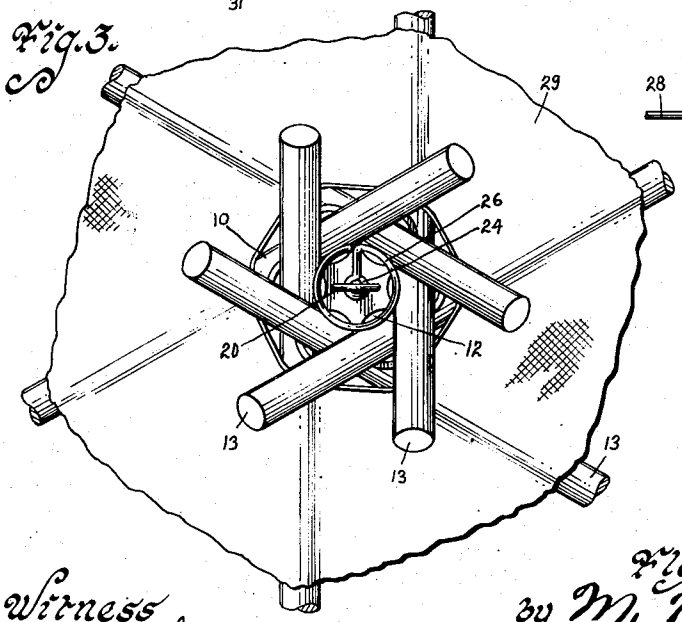
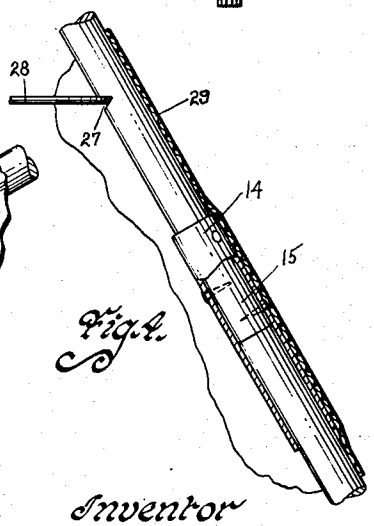


Fig. 4.



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Fig. 5.

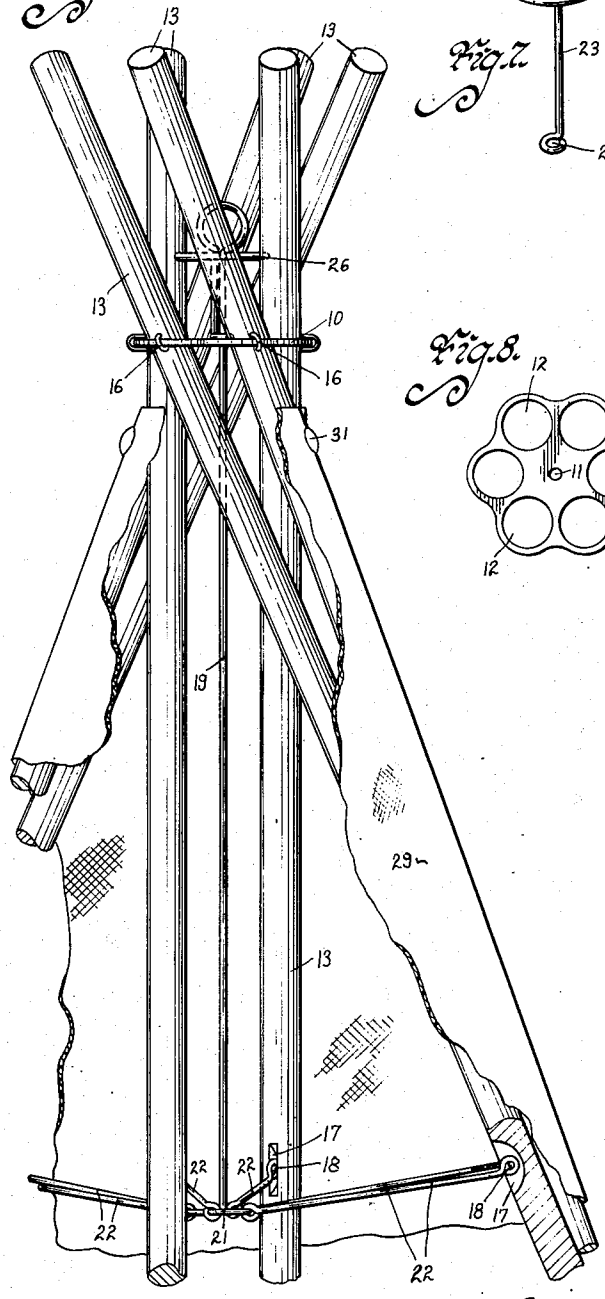


Fig. 7.

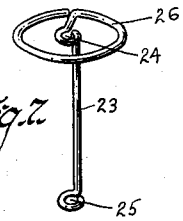


Fig. 8.

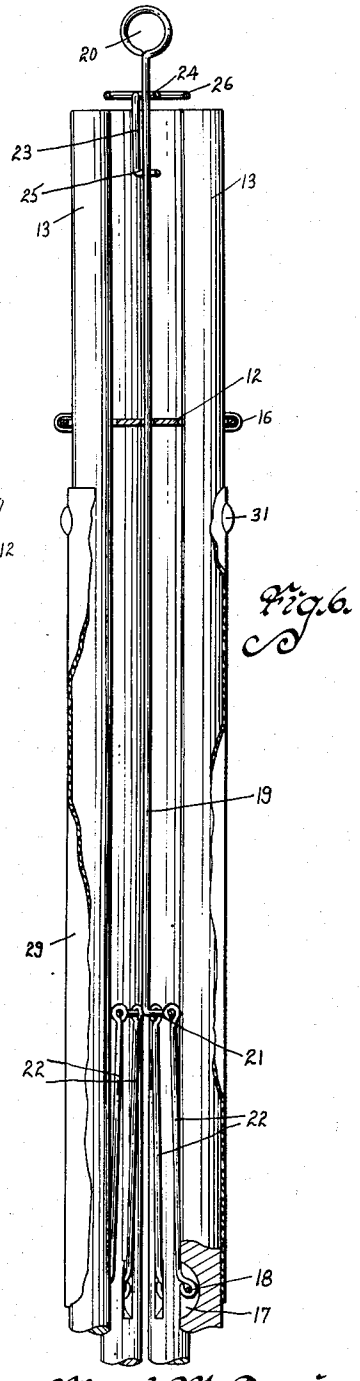


Fig. 6.

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TENT

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Application September 12, 1949, Serial No. 115,283

9 Claims. (Cl. 135—4)

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The principal object of my invention is to provide a wigwam type tent that is easily and quickly extended and collapsed due to a novel arrangement and positioning of the component parts thereof that co-act with each other so as to make it unnecessary to manually handle and position each individual part.

A further object of this invention is to provide a tent that when collapsed is formed into a compact portable unit that can be easily and conveniently transported by hand, in an automobile or the like.

A still further object of this invention is to provide a tent that is adjustable in height so as to be capable of use as a child's play tent or for camping or the like.

A still further object of this invention is to provide a tent that can be used out-of-doors or indoors, if desired, and that in its extended or open position can be carried or moved without danger of collapsing.

A still further object of my invention is to provide a collapsible wigwam type tent that is simple in construction, easy to extend and collapse, rigid and sturdy when extended and durable in use.

A still further object of this invention is to provide a tent that is refined in appearance and economical in manufacture.

These and other objects will be apparent to those skilled in the art.

My invention consists in the construction, arrangement, and combination of the various parts of the device, whereby the objects contemplated are attained as hereinafter more fully set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which:

Fig. 1 is a perspective view of this tent with dotted lines illustrating the interior arrangement of supporting parts and a cut away portion shown to more fully illustrate one of the pole joints;

Fig. 2 is a side view of this tent showing it in a collapsed position for storage or transporting;

Fig. 3 is a top view of this tent as shown in Fig. 1;

Fig. 4 is a fragmentary longitudinal section view of one of the support poles taken from the line 4—4 of Fig. 1;

Fig. 5 is a front view of the upper portion of this tent in extended position with a portion of the outer cover cut away to more fully illustrate its construction;

Fig. 6 is a front view of the upper portion of this tent in collapsed position with a portion of the outer cover cut away to more fully illustrate its construction and arrangement;

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Fig. 7 is a front view of the locking and alignment ring that is used with this tent; and

Fig. 8 is a top view of the pole alignment rose that is used with this tent.

Tents have long been used not only to provide shelter at times but also as playthings for small children. However, when used for any purpose they are generally needed only for short periods of time and obviously the less work involved in transporting, erecting and collapsing them, the more satisfactory they are. In my tent I have arranged the various parts so that the tent is ready for instant use with a minimum of effort. My tent can be easily and quickly opened by merely pulling two oppositely positioned poles and this causes the entire structure to open into place. There are no ropes to tie nor any stakes to drive and consequently none to gather up when the tent is collapsed. This eliminates the danger of lost ropes and tent pegs.

This tent can be used for small children indoors as well as out-of-doors because it will safely and rigidly stand on a rug or floor and no holes are required in the supporting surface. It is rigid enough when extended so that it can be safely moved without danger of collapsing if desired, when set up either indoors or in the yard. When not in use it takes a minimum amount of space for storage.

My tent is adjustable as to height so that one tent can serve many purposes.

Referring to the drawings I have used the numeral 10 to designate what I have called a pole alignment rose. This rose is a flat horizontal metal plate and is provided with a central opening 11 and a plurality of spaced apart openings 12 arranged near the periphery thereof, as shown in Fig. 8. The numeral 13 designates a plurality of elongated pole members that are vertically positioned in close spaced relation so that the upper portion of each pole extends through and is movable in one of the holes 12 respectively, as shown in Fig. 3 and Fig. 5. The poles 13 are adjustable in length by making them in two sections and providing the bottom of the top section and the top of the bottom sections respectively with the tubular casings 14 and 15, as shown in Fig. 4. The casing 15 is smaller in diameter than the casing 14 so that it is slidable within and in frictional engagement with the inside of the casing 14.

On each pole 13 at its upper portion I secure a staple 16 that embraces the edge of the rose 10 at each respective hole 12, as shown in Fig. 5. These staples serve to keep the poles 13 from falling out of the rose and they should be slidable

about the respective edges of the holes 12 as will later be described in detail.

The numeral 17 designates a recessed portion provided in the inside of each pole 13 below the staples 16, and the numeral 18 designates a rod member secured in each recess transversely to the longitudinal axis of the respective poles 13, as shown in Fig. 5.

The numeral 19 designates a control rod vertically slidable within the opening 11 of the rose 10, as shown in Fig. 5. This rod 19 I have formed from a single strand length and the upper end above the rose 10 is bent to form an eye 20 which serves as a finger grip means to facilitate the opening and closing of the tent that is later described. The bottom end portion of the control rod 19 is bent at right angles to the main rod length and then is further bent to form an eye or spider body 21 which is at substantially right angles to and at the bottom of the main rod length 19, as shown in Fig. 5.

The numeral 22 designates a plurality of rod length members with each respective length having an eye on each respective end thereof to form what I have called the spider legs. One end of each spider leg respectively is movably arranged on the spider body 21 and the other end of each respective leg is movably arranged on one of the rod members 18 in one of the poles 13, as shown in Fig. 5.

A locking link and alignment ring 23 is arranged on the upper portion of the central rod 19 between the top of the rose 10 and the bottom of the eye 20. This link I make from a single rod length that is bent to form the two vertically spaced apart eyes 24 and 25 and the upper ring portion 26, as shown in Fig. 7. This link 23 is positioned as above described so that the control rod 19 passes through the eyes 24 and 25 and the upper eye 24 is capable of serving as a stop at times to prevent the downwardly movement of the control rod 19. The ring portion 26 is positioned so that the upper end portions of the poles 13 surround it when the tent is collapsed, as shown in Fig. 6. When the tent is being extended the ring 26 serves as a stop and guide means to prevent the upper portions of the poles 13 from getting crossed and inter-tangled, thus insuring their travel to their proper position, as shown in Fig. 3. The numeral 27 designates a notch cut in each of the poles 13 downwardly from the respective recess portion 17, as shown in Fig. 4. The numeral 28 designates a resilient rod spreader ring.

The numeral 29 designates an outer covering provided with a flap opening 30 and is designed to surround the poles 13 in the shape of a wigwam, as shown in Fig. 1. The cover 29 extends from the bottom of each respective pole 13 to, but short of, the rose 10 and is secured to the poles at its top and bottom portions respectively by any suitable means such as the snaps 31 or the like. A snap fastener and strap 32 is secured to the bottom portion of the cover 29, as shown in Fig. 2 to prevent the poles 13 from extending when the tent is collapsed. Likewise, if desired, a snap fastener may be placed on the flap 30 and cover 29 to prevent the flap 30 from accidentally closing. A suitable hood or cap portion can also be placed over the top portion of the poles 13 when the tent is extended if inclement weather or otherwise should make it desirable.

The numeral 33 designates a screw anchor member secured to one end of a rope length 34,

that is used for anchoring the tent in a high wind, a storm or the like.

This tent when constructed and arranged as described will operate in the following manner: The closed or collapsed position of this tent is illustrated in Fig. 6. To extend or open it, it is placed in a vertical position with the bottom of the poles 13 resting on the supporting surface. Then any two opposite poles 13 are manually pulled apart and this will force out the other poles due to the arrangement of the spider body 21 and spider legs 22. As this occurs the top portions of the poles will be in motion and the ring 26 serves to prevent them from getting crossed, as previously described.

With the poles in extended or open position the control rod 19 is manually pushed downwardly by use of the eye grip member 20 until its downward movement is stopped by the eye 24 in the link 23. In this position the spider body 21 will be slightly below the dead center line of the spider legs and the tent will be locked in place due to the triangles formed by the respective poles 13, spider legs 21 and the control rod 19, as shown in Fig. 5.

When the tent is being opened there is a slight turning action by the poles 13 and the staples 16 in the poles 13 will freely move with the poles without danger of being pulled out.

If the poles are to be adjusted to their greatest length it is merely necessary to unsnap the cover and make the desired adjustment and when the longer pole length is used, it has been found that an additional pole support is preferable to insure a rigid support for the lower portion of the tent. This I have provided by the resilient spreader ring 28 that is positioned after the tent is erected. This ring is placed inside the tent so that a portion of the ring rests in the notch 27 in each pole and exerts an outwardly force thereon.

To collapse the tent, the ring 28, if used, is first removed. The control rod 19 is pulled upwardly until the spider body is above the dead center point of the spider legs and the poles are pulled in to their vertical position. The strap 32 is secured around the bottom of the tent and snapped and the tent is ready for transporting or storage.

If the tent is used as a child's play tent, any danger to scratching or marring floors when the tent is opened indoors can be avoided by inverting it, holding to the nearest pole and in this position it will open and lock by its own weight on the control rod.

To secure the tent in a high wind, storm or the like, the anchor 33 is screwed into the ground in the center of the tent and the free end of the rope 34 is secured to the spider body, as shown in Fig. 1.

Some changes may be made in the construction and arrangement of my tent without departing from the real spirit and purpose of my invention, and it is my intention to cover by my claims, any modified forms of structure or use of mechanical equivalents which may be reasonably included within their scope.

I claim:

1. In a device of the class described, a horizontal plate member provided with a plurality of openings, a plurality of pole members each having the upper end portion thereof extending up through one of said openings and movably secured therein, a means for adjusting the length of each of said poles, a rod member vertically slidable in one of said openings; said rod provided with an eye on its top end and bent at its

bottom end to form a ring portion, a plurality of rod lengths each having an eye on each end thereof; said last mentioned rods respectively movably secured at one end to said ring portion and at the other ends respectively to one of said poles, a stop member to limit the vertical movement of said first mentioned rod, a guide means arranged on said first mentioned rod above the said plate member and designed to prevent said poles from becoming crossed when said poles are radially extended, a resilient ring member designed to engage each respective pole to hold them in spaced apart relation, an anchor means capable of being secured to a supporting surface and a tent cover detachably secured to said pole members.

2. In a device of the class described, a plate member provided with a plurality of openings, a plurality of pole members each having the upper end portion thereof extending up through one of said openings and movably secured therein, a rod member vertically slidable in one of said openings; said rod provided with an eye on its top end and bent at its bottom end to form a ring portion, a plurality of rod lengths each having an eye on each end thereof; said last mentioned rods respectively movably secured at one end to said ring portion and at the other ends respectively to one of said poles, a guide means arranged on said first mentioned rod above the said plate member and designed to prevent said poles from becoming crossed when said poles are being radially extended, and a tent cover detachably secured to said pole members.

3. In a device of the class described, a plate member provided with a plurality of openings, a plurality of pole members each having the upper end portion thereof extending up through one of said openings and movably secured therein, a rod member vertically slidable in one of said openings; said rod provided with an eye on its top end and bent at its bottom end to form a ring portion, a plurality of rod lengths each having an eye on each end thereof; said last mentioned rods respectively movably secured at one end to said ring portion and at the other ends respectively to one of said poles, a resilient ring member designed to engage each respective pole to hold them in spaced apart relation, and a tent cover detachably secured to said pole members.

4. In a device of the class described, a plate member provided with a plurality of openings, a plurality of pole members each having the upper end portion thereof extending up through one of said openings and movably secured therein, a rod member vertically slidable in one of said openings; said rod provided with an eye on its top end and bent at its bottom end to form a ring portion, a plurality of rod lengths each having an eye on each end thereof; said last mentioned rods respectively movably secured at one end to said ring portion and at the other ends respectively to one of said poles, a stop member to limit the vertical movement of said first mentioned rod, a guide means on said stop member arranged on said first mentioned rod above the said plate member and designed to prevent said poles from becoming crossed when said poles are being radially extended, and a tent cover detachably secured to said pole members.

5. In a device of the class described, a plate member provided with a plurality of openings, a plurality of pole members each having the upper end portion thereof extending up through one

of said openings and movably secured therein, a rod member vertically slidable in one of said openings; said rod provided with an eye on its top end and bent at its bottom end to form a ring portion, a plurality of rod lengths each having an eye on each end thereof; said last mentioned rods respectively movably secured at one end to said ring portion and at the other ends respectively to one of said poles, a stop member to limit the vertical movement of said first mentioned rod, a resilient ring member designed to engage each respective pole to hold them in spaced apart relation, and a tent cover detachably secured to said pole members.

6. In a device of the class described, a plate member provided with a plurality of openings, a plurality of pole members each having the upper end portion thereof extending up through one of said openings and movably secured therein, a rod member vertically slidable in one of said openings; said rod provided with an eye on its top end and bent at its bottom end to form a ring portion, a plurality of rod lengths each having an eye on each end thereof; said last mentioned rods respectively movably secured at one end to said ring portion and at the other ends respectively to one of said poles, a guide means arranged on said first mentioned rod above the said plate member and designed to prevent said poles from becoming crossed when said poles are being radially extended, a resilient ring member designed to engage each respective pole to hold them in spaced apart relation, and a tent cover detachably secured to said pole members.

7. In a device of the class described, a plate member provided with a plurality of openings, a plurality of pole members each having the upper end portion thereof extending up through one of said openings and movably secured therein, a means for adjusting the length of each of said poles, a rod member vertically slidable in one of said openings; said rod provided with an eye on its top end and bent at its bottom end to form a ring portion, a plurality of rod lengths each having an eye on each end thereof; said last mentioned rods respectively movably secured at one end to said ring portion and at the other ends respectively to one of said poles, a stop member to limit the vertical movement of said first mentioned rod, a guide means on said stop member arranged on said first mentioned rod above the said plate member and designed to prevent said poles from becoming crossed when said poles are being radially extended, and a tent cover detachably secured to said pole members.

8. In a device of the class described, a plate member provided with a plurality of openings, a plurality of pole members each having the upper end portion thereof extending up through one of said openings and movably secured therein, a rod member vertically slidable in one of said openings; said rod provided with an eye on its top end and bent at its bottom end to form a ring portion, a plurality of rod lengths each having an eye on each end thereof; said last mentioned rods respectively movably secured at one end to said ring portion and at the other ends respectively to one of said poles, and a guide means arranged on said first mentioned rod above the said plate member and designed to prevent said poles from becoming crossed when said poles are being radially extended.

9. In a device of the class described, a plate member provided with a plurality of openings, a

plurality of pole members each having the upper end portion thereof extending up through one of said openings and movably secured therein, a rod member vertically slidable in one of said openings; said rod provided with an eye on its top end and bent at its bottom end to form a ring portion, a plurality of rod lengths each having an eye on each end thereof; said last mentioned rods respectively movably secured at one end to said ring portion and at the other ends respectively to one of said poles, and a resilient ring member designed to engage each respective pole to hold them in spaced apart relation.

FLOYD M. DAVIS.

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