June 20, 1950 H. F. GUENZL 2,512,099

TENT POLE LOCK

Filed Aug. 14, 1946 2 Sheets-Sheet 1

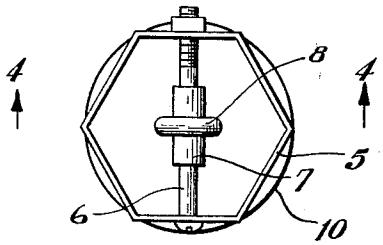


Fig. 1

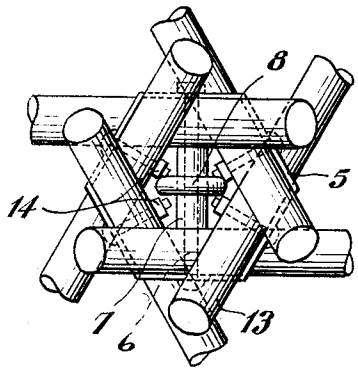


Fig. 5

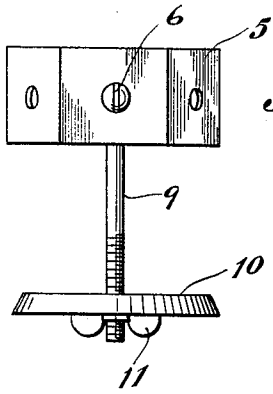


Fig. 2

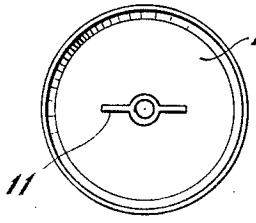


Fig. 3

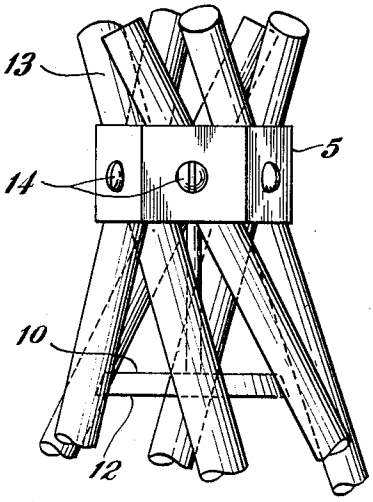


Fig. 6

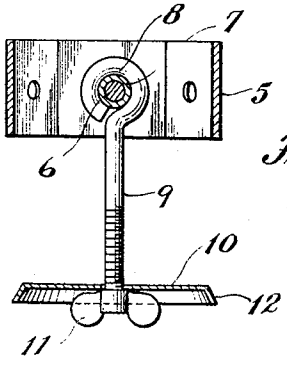


Fig. 4

Inventor

Herbert F. Guenzl

By Clarence A. O'Brien and Harvey B. Jackson

Attorneys

June 20, 1950 H. F. GUENZL 2,512,099

TENT POLE LOCK

Filed Aug. 14, 1946 2 Sheets-Sheet 2

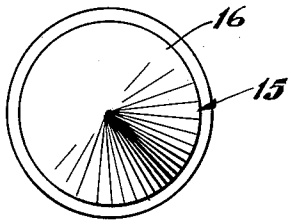


Fig. 7

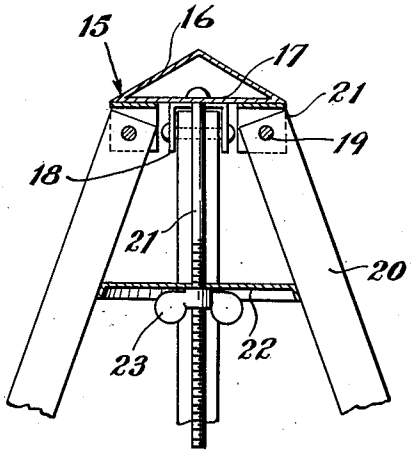


Fig. 10

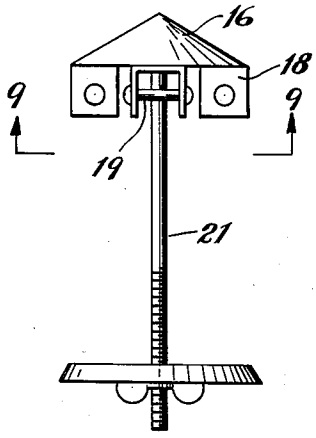


Fig. 8

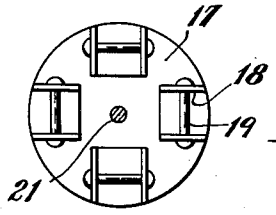


Fig. 9

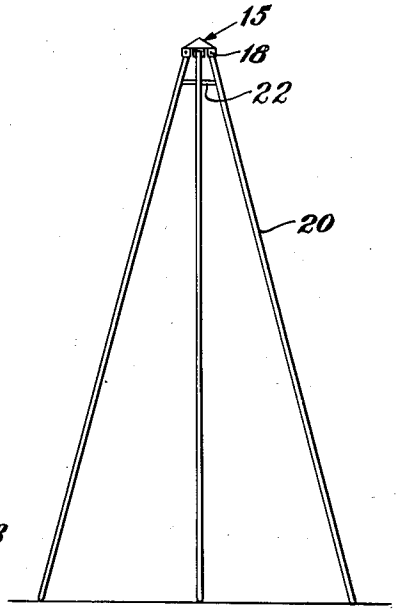


Fig 11

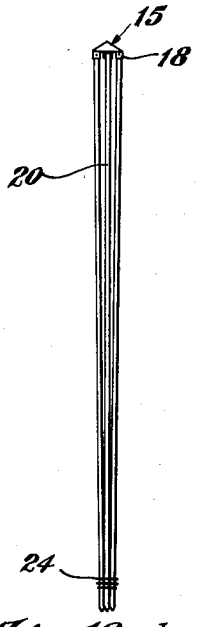


Fig. 12

Inventor

Herbert F. Guenzl

By Clarence A. O'Brien and Harvey B. Jacobson

Attorneys

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UNITED STATES PATENT OFFICE

2,512,099

TENT POLE LOCK

Herbert F. Guenzl, Merrill, Wis.

Application August 14, 1946, Serial No. 690,437

2 Claims. (Cl. 135—4)

1

The present invention relates to new and useful improvements in tents and more particularly to locking means for the poles of a tepee type tent whereby to secure the poles in an upright position without requiring the use of pegs, ropes or other fastening devices for securing the tent in its erected position.

A further object of the invention is to provide a connector for the upper ends of a plurality of tent poles and to which the poles are pivotally attached to swing the poles into a collapsed position when not in use together with means for expanding or spreading the poles and securing the same against folding or collapsed movement.

A further object of the invention is to provide a connector for the upper ends of the tent poles whereby the same are at all times connected to each other in order that the poles may be carried and stored as a unit without danger of the poles becoming scattered from each other and lost.

Another object is to provide a device of this character of simple and practical construction, which is efficient and reliable in use, relatively inexpensive to manufacture and otherwise well adapted for the purposes for which the same is intended.

Other objects and advantages reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a top plan view of a connector for the upper ends of the tent poles embodying one form of the invention.

Figure 2 is a side elevational view.

Figure 3 is a bottom plan view.

Figure 4 is a transverse sectional view taken on a line 4—4 of Figure 1.

Figure 5 is a fragmentary top plan view showing the upper ends of the tent poles secured to the connector.

Figure 6 is a side elevational view thereof.

Figure 7 is a top plan view of a modified form of connector.

Figure 8 is a side elevational view thereof.

Figure 9 is a sectional view taken on a line 9—9 of Figure 8.

Figure 10 is a vertical sectional view showing the expander in use for spreading the tent poles.

Figure 11 is a side elevational view of the tent poles in upright position, and

Figure 12 is a similar view showing the tent poles in collapsed position.

2

Referring now to the drawings in detail and first with respect to the form of the invention illustrated in Figures 1 to 6 inclusive, the numeral 5 designates the connector which is constructed in the form of a ring or band of hexagonal form and provided with a bolt or pin 6 extending transversely thereof and supported at two of the flat sides of the connector.

A sleeve 7 is mounted on the bolt or pin 6 and on which is swingably supported an eye 8 of a bolt 9 suspended from the pin, the bolt 9 having a disc 10 freely mounted thereon and adjusted vertically on the bolt by means of a wing nut 11 threaded on the lower end thereof. The edge of the disc 10 is formed with a downwardly extending outwardly inclined flange 12.

A plurality of tent poles 13 have their upper ends positioned against the flat sides of the connector 5 on the inside thereof and are pivotally secured to the connector by bolts or the like 14, the lower ends of the poles having limited spreading movement into an open position, an adjacent flat side of the connector 5 functioning as a stop for engaging the upper ends of the poles which project above the connector to limit the opening or spreading movement of the lower ends of the poles.

The lower ends of the poles are locked in their open or expanded position by adjusting the disc or expander 10 vertically on the bolt 9 and securing the same in its raised position by the wing nut 11 whereby to prevent folding or collapsing movement of the poles.

Accordingly, when the expander 10 is moved upwardly with the flange 12 of the expander engaging the inner edges of the pole 13 below the connector 5 in the manner as shown in Figure 6 of the drawings, the lower ends of the poles will be locked in their open or expanded position and the poles may then support a tent covering thereon (not shown) to provide a tepee type tent which will be supported in an upright position without requiring the use of pegs, rope or other fastening devices.

In the form of the invention illustrated in Figures 7 to 12 inclusive, the connector designated generally at 15 is in the form of a conical metal cap 16 including a bottom 17 to the underside of which a plurality of inverted U-shaped hangers 18 are welded or otherwise suitably secured. Pins 19 extend transversely of the hangers and to which the upper ends of the tent poles 20 are pivotally attached, the upper ends of the poles having square corners 21 adapted to engage the tops of the hangers to

limit the outward swinging movement of the poles.

A bolt 21 extends downwardly from the bottom 17 of the cap and on which the expanding disc 22 is supported for vertical adjustment thereon and secured in its vertically adjusted position by means of the wing nut 23. The expander 22 engages the inner edges of the poles 20 to secure the later in their outwardly inclined position against collapsing movement whereby the frame of the tent formed by the poles 20 will be supported in an upright position as shown in Figure 11 of the drawings without requiring the use of pegs, ropes or other fastening devices.

By moving the expander 22 downwardly on the bolt 21 the poles 20 may be swung into a collapsed position as shown in Figure 12 and the free ends of the poles tied together by a rope or the like 24 for conveniently transporting and storing the same.

In view of the foregoing description taken in conjunction with the accompanying drawings it is believed that a clear understanding of the construction, operation and advantages of the device will be quite apparent to those skilled in this art. A more detailed description is accordingly deemed unnecessary.

It is to be understood, however, that even though there is herein shown and described a preferred embodiment of the invention the same

is susceptible to certain changes fully comprehended by the spirit of the invention as herein described and the scope of the appended claims.

I claim as my invention:

1. A tent frame comprising a plurality of tent poles, an annular ring surrounding said poles and connected thereto adjacent the upper ends thereof, a transverse bolt secured to said ring, and locking means secured to said bolt and engaging said tent poles to lock them in outwardly swung position.

2. A tent frame comprising a plurality of tent poles, an annular ring surrounding said poles, means securing the poles to the ring in spaced relation with respect to each other, a transverse bolt secured to said ring, and locking means secured to said bolt and engaging the tent poles to lock them in outwardly swung position.

HERBERT F. GUENZL.

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