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Feldman et al.

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[54] **TENT**

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[52] **U.S. Cl.** ..... **135/3 R;** 135/15 PQ

[51] **Int. Cl.** **A45f 1/16**

[58] **Field of Search** ..... 135/1 R, 3 R, 7.1 R, 15 PQ

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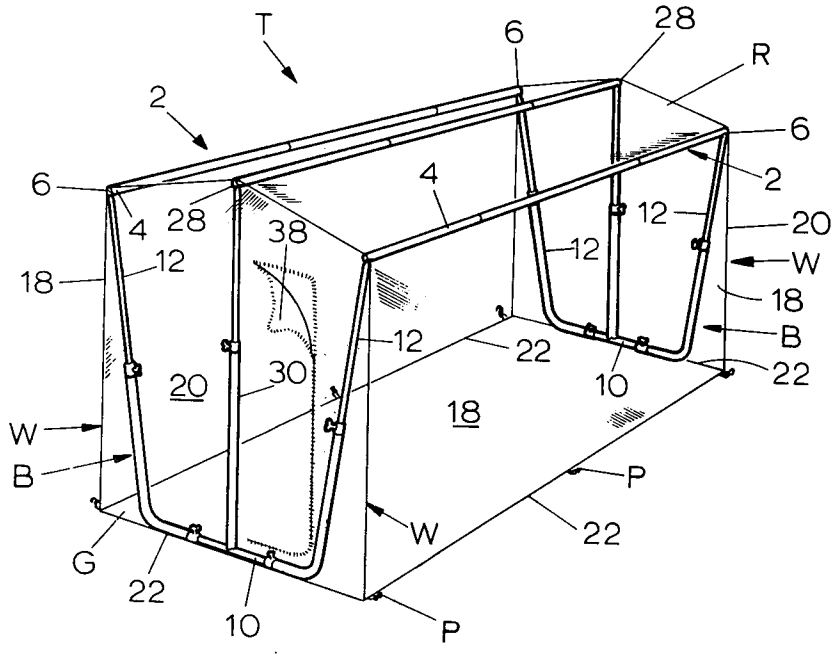
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Assistant Examiner—David H. Corbin

[57] **ABSTRACT**

A tent having a roof and eaves poles attachable to the roof at opposite margins thereof, and bows disposable on the ground between the roof margins for engaging and applying a spreading force to the eaves poles to tense the roof between them and to prop it.

9 Claims, 6 Drawing Figures



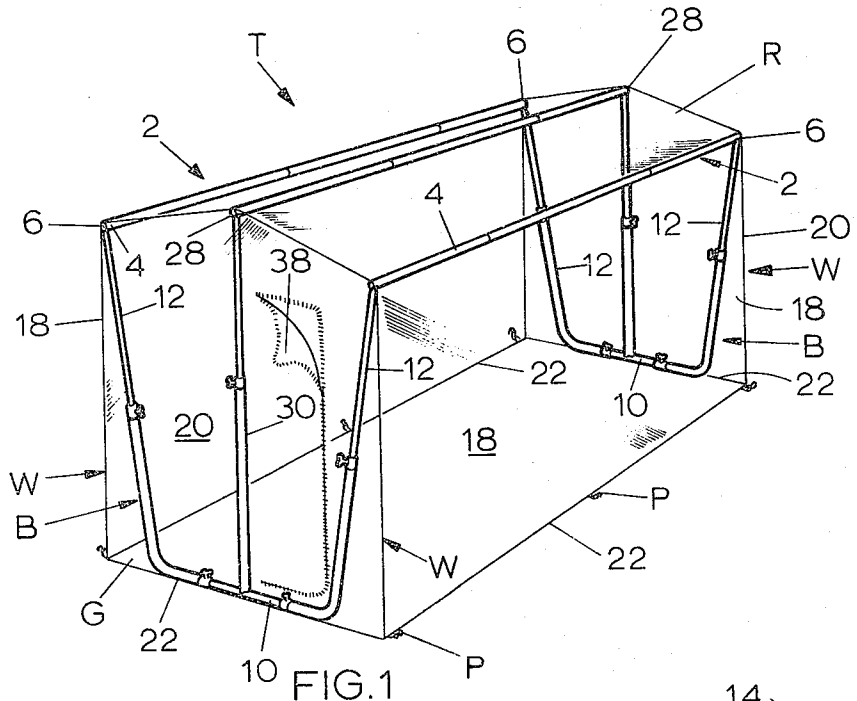


FIG. 1

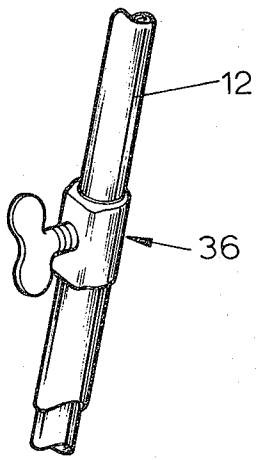


FIG. 2

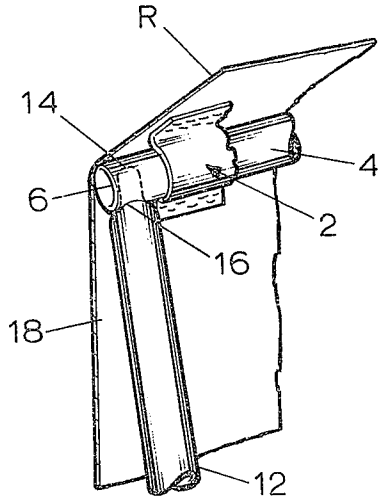


FIG. 3

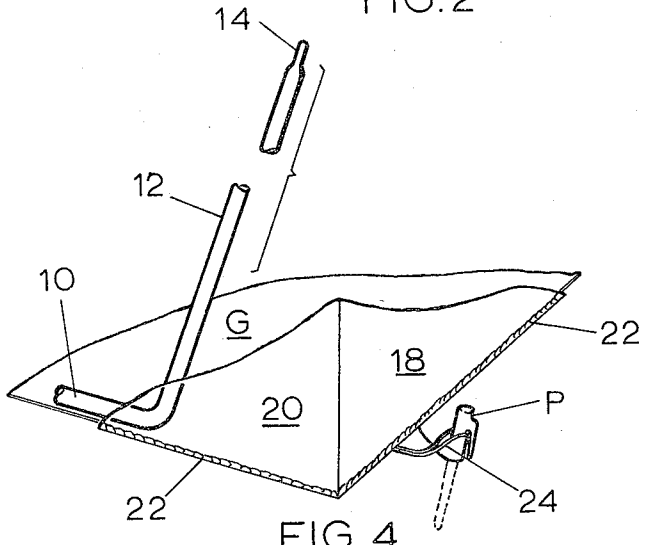


FIG. 4

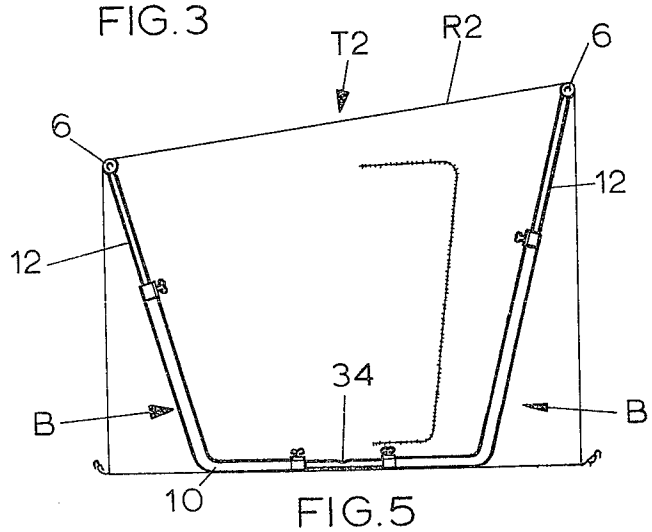


FIG. 5

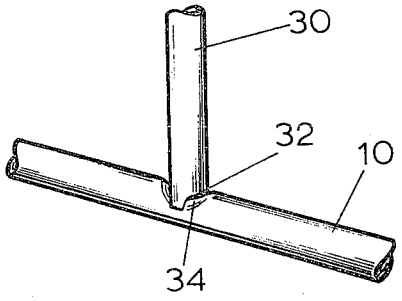


FIG. 6

TENT

The invention relates broadly to improvements in tents and, particularly, in the framing which supports the tent roof which, in turn, provides suspension for the tent walls.

The invention is principally concerned with the type of tent whose roof requires to be tensed whether to shape it or maintain it in position or both.

Various devices were resorted to in the past for imparting the requisite tension to the tent roof. Traditionally, guy ropes were used for this purpose and, more recently, the necessary tension was communicated to the tent roof by downward pull through the tent walls which were attached thereto.

In virtually every instance, the effectiveness of the tension depended on good ground anchorage for guy ropes, tent pegs and so forth which, of course, was not always possible or available.

Having regard to the foregoing, the invention seeks, as one of its main objects, to provide a tent of the character described wherein the requisite tension is applied to the tent roof by the tent framing itself thereby eliminating the necessity for reliance on ground anchorage for this purpose; the roof being also supported at a suitable height by the same framing.

In this submission, the edges or margins of the tent roof are sometimes referred to as its eaves and the framing visualized includes eaves poles to which the tent roof is attachable at its said eaves.

Thus, a further important object of the invention is to provide a tent as aforesaid whose framing includes the eaves poles aforesaid at opposite margins of the tent roof and braces for engaging the eaves poles not only to apply the required tension to the roof but also to hold it up.

Still further objects are: to provide a tent as aforesaid with framing which is capable of being virtually wholly contained within the tent; to provide a tent comprised of framing and a fabric enclosure including a floor which is secured as by sewing, for example, to the tent walls; to provide a tent including a fabric enclosure with a floor as described within which the framing aforesaid is virtually completely containable not only to support and tense the tent roof but also to hold down the tent floor.

The stated and other objects of the invention are achieved by the provision of braces in the form of bow-like devices for propping the eaves poles.

That is to say, the respective ends of each bow extend upwardly and divergently from its intermediate portion hereinafter sometimes referred to as a sill. Dimensionally, each present bow is proportioned so that, with its sill resting on the ground, its ends will reach to and engage the respective eaves poles of the tent roof not only to hold them and the tent roof up to the required height but also to apply a spreading force to them whereby to tense the tent roof to which they are attached.

Otherwise described, assuming a bow joining the ends of the eaves poles at each end of the tent, this assembly of bows and eaves poles forms an integral and stable armature which is capable of holding up and tensing the tent roof.

Of course, walls may also be provided and, in the usual fashion, may be suspended from the eaves or margins of the tent roof. Also, as is customary, the tent walls may be pegged to the ground to hold them down

and keep them from flapping. It must be observed, however, that the present construction does not rely on the tent walls to tense or tauten the tent roof and it is further noteworthy that the present construction is not limited to a flat, peaked or pitched tent roof but may be effectively adapted for use with a roof of virtually any other standard form.

Objects of the invention other than those herein stated and of more or less breadth will become apparent from the hereinafter following description of the elements, parts and principles constituting the invention given herein by way of example only with reference to the selected embodiment illustrated in the accompanying drawing wherein like parts of the invention are identified by like reference devices and wherein:

FIG. **1** is a perspective view of one embodiment of the tent according to the present invention with a transparent enclosure formed of transparent fabric;

FIG. **2** is a perspective view of a portion of a framing member fitted with a locking device;

FIG. **3** is a fragmentary view in perspective of a terminal portion of a bow engaged with an eaves pole;

FIG. **4** is a perspective view of a bottom corner of the tent staked to the ground;

FIG. **5** is a front elevational view of another embodiment of the tent, but with the same type of bow and fabric employed in the tent of FIG. **1**, and

FIG. **6** is a perspective view of a post extending upwardly from the sill to support a ridge pole.

For the sakes of clarity and simplicity, it is deemed desirable to discuss the present inventive concept in relation to the tent T illustrated in FIG. **1** of the drawing which will be seen to be comprised of roof R having tunnels at opposite margins **2—2** through which eaves poles **4—4** are respectively threaded as best shown in FIG. **3**; the parts being proportioned so that the ends **6—6** of each eaves pole **4** will project from the respective ends of the tunneled margins **2—2** and so that the corresponding ends of eaves poles **4—4** are conterminous at opposite sides of the tent.

For orientation purposes the tunneled margins **2—2** through which the eaves poles **4—4** are threaded will herein be regarded as being disposed at the sides of roof R -- in other words, at the sides of the tent T.

Each pair of conterminous eaves pole ends **6—6** are joined together in the present example by a bow B substantially as shown in FIG'S **1** and **5.** As will be apparent, each said bow B is a U-form whose intermediate portion or bight serves as a sill **10** which, in turn, functions as the foot of the bow B -- i.e., the ground engaging element on which it stands. Preferably, of course, the sill **10** is rectilinear and elongated.

As will be observed, the length of the sill **10** -- i.e., the intermediate, rectilinear portion of the bow B -- is significantly less than the width of the tent T between its eaves poles **4—4**; the respective terminal portions of the bow B, herein referred to as props **12—12,** extending divergently upwardly from the respective ends of sill **10,** to engage the eaves poles **4—4.** That is to say, each said prop **12** terminates in a dowel **14** (shown in full and dotted lines in FIGS. **4** and **3,** respectively) insertable in a hole **16** provided in said eaves pole **4.** Thus, in the tent construction of FIG. **1** for example, the sill **10** of each bow B rests on the ground between the eaves poles **4—4** while its props **12—12** extend divergently upwardly to engage the eaves poles **4—4** and

apply a spreading force thereto whereby to tense the attached tent roof R.

The tent walls W are secured to the tent roof R and depend therefrom to the ground in more or less conventional manner; these walls W comprising sidewalls **18—18** which are attached to the tent roof R at its margins **2—2**. In addition, there are provided walls **20—20** at the tent ends and the bottom edges of the enumerated walls **18—18** and **20—20** are joined to a ground sheet G of appropriate dimension which is preferably imperforate, i.e. free of holes or openings; the joining being effected by peripheral seaming **22** at the tent sides and ends as best illustrated in FIG. **4.**

Loops **24** (FIG. **4**) may also be secured by said seaming **22** to extend outwardly from the tent T; said loops **24** accomodating tent pegs P which are driven therethrough into the ground to secure the ground-sheet G (being the tent floor), in outspread condition and, as well, to hold down the tent walls, particularly the sidewalls **18—18.**

That is to say, when the tent T is equipped with walls W and a ground-sheet G as described, bows B may be erected inside the resulting enclosure whereby the sill **10** of each bow B will effectively pin the ground-sheet G to the ground on which it stands. Thus, in the example of FIG. **1**, a bow B is disposed at each endwall **20** of the tent T with its props **12—12** engaging the conterminous ends **6—6** of eaves poles **4—4** and with its sill **10** resting on ground-sheet G adjacent -- but inside of -- the front endwall **20.**

In the form illustrated in FIG. **1**, the tent T is provided with a peaked roof having a central ridge pole **26** disposed between and parallel to the eaves poles **4—4**; the ridge pole **26** being supported at each end **28** by a post **30** extending upwardly from the sill **10** in a manner which will be obvious. Preferably, the bottom of each said post **30** is provided with a concave terminal portion **32** adaptable to mate with the convexity in this instance, of said sill **10** as best shown in FIG. **6**; said sill **10** including a slight indentation **34** for positioning said post **30** thereon.

In the form illustrated in FIG. **5** tent T_2 has a pitched roof R_2; one of the props **12—12** of each bow B being, accordingly longer than the other to accomodate its slope.

As is well-known, many tent fabrics may tend to stretch or shrink according to the weather and it is desirable accordingly, that the tent framing be made adjustable to accomodate such stretching or shrinking. To this end, the respective members of the framing, e.g.: the eaves poles **4—4**, the props **12**, posts **30**, sills **10**, and any further members incorporated therein may be rendered telescopic as suggested by FIG. **2** to permit extension or retraction thereof as needed to cope with the stretching or shrinking of the fabric. Preferably, each such member is fitted with a locking device such as shown at **36** in FIG. **2** which is capable of being released to permit telescoping of the member or locked to prevent such telescoping.

By way of brief summary, therefore, the present invention provides a tent of the character described wherein the requisite tension is applied to the tent roof solely by the tent framing itself. That is to say, the tent framing as visualized herein includes braces in the form of bow-like devices not only to prop the eaves poles and tent roof at the required height but also to apply a spreading force to said eaves poles whereby to tense the tent roof to which they are attached.

The present construction also makes available a tent which may be rapidly set up and demounted as well as one whose frame members can be adjusted as necessary from inside the tent whether in the setting up of the tent or to cope with the effects of weather.

Furthermore, the described tent construction also permits realization of the foregoing advantages in combination with an imperforate ground-sheet for excluding vermin and dampness.

In addition, it will be understood that the tent construction may be provided with the necessary openings in the tent roof and/or walls either for ventilation purposes or simply to gain access into the tent. For example, the tent may be provided with a closure in an endwall as represented by the door flap **38** in FIG. **1.**

Finally, it is particularly noteworthy that, in the area of complexity and cost, there is nothing in the present tent construction which entails or necessitates costly manufacturing procedures.

What we claim is:

1. A tent comprising:

a roof and framing for supporting said roof at an elevation and for applying tension thereto to maintain it in outstretched condition; said framing including:

eaves poles attachable to said roof at opposite margins thereof, said roof including tunnels extending along opposite margins thereof into which said eaves poles are removably insertable to attach them to said roof as aforesaid, said eaves poles having ends which are exposed at the corresponding ends of said roof margins when said eaves poles are inserted in said tunnels, and said framing also including bows disposable on the ground between said margins for engaging and applying a spreading force to the eaves poles to tense the roof between them and to prop it at an elevation, each said bow being installable and removable independently of the other bow and including an elongated sill positionable on the ground and a prop interconnectible between said sill and an exposed end of each said eaves pole; the props and eaves poles having means for readily engaging and disengaging each eaves pole with and from the upper ends of the respective props, the props being in fixed angular relationship with said sill and diverging therefrom towards said eaves poles to apply spreading and propping forces thereto as aforesaid, each sill having opposite end portions from which the respective props are integral extensions, and each bow having means for manually adjusting its length to a selected fixed length for manual adjustment of said spreading and propping forces.

2. A tent as defined in claim **1** wherein said framing further includes;

a ridge pole for said roof, and

posts between said ridge pole and the sills of the bows for supporting said ridge pole.

3. A tent as defined in claim **2** wherein:

each said post is engaged with the sill and with the ridge pole.

4. A tent as defined in claim **1** including:

walls depending from the margins of said roof, and

a ground-sheet interconnecting the bottom edges of the walls and underlying said bows and being held down thereby.

5. A tent as defined in claim 2 wherein:
some, at least, of the elements of said framing are longitudinally adjustable.
6. A tent as defined in claim 4 wherein:
some, at least, of the elements of said framing are longitudinally adjustable.
7. A tent as defined in claim 4 wherein:
the bows are located internally of said tent.
8. A tent as defined in claim 4 including:

means for anchoring the bottom edges of said walls to the ground.
9. A tent as defined in claim 6 wherein:
the bows are located internally of said tent, and further including;
means for anchoring the bottom edges of said walls to the ground.

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