

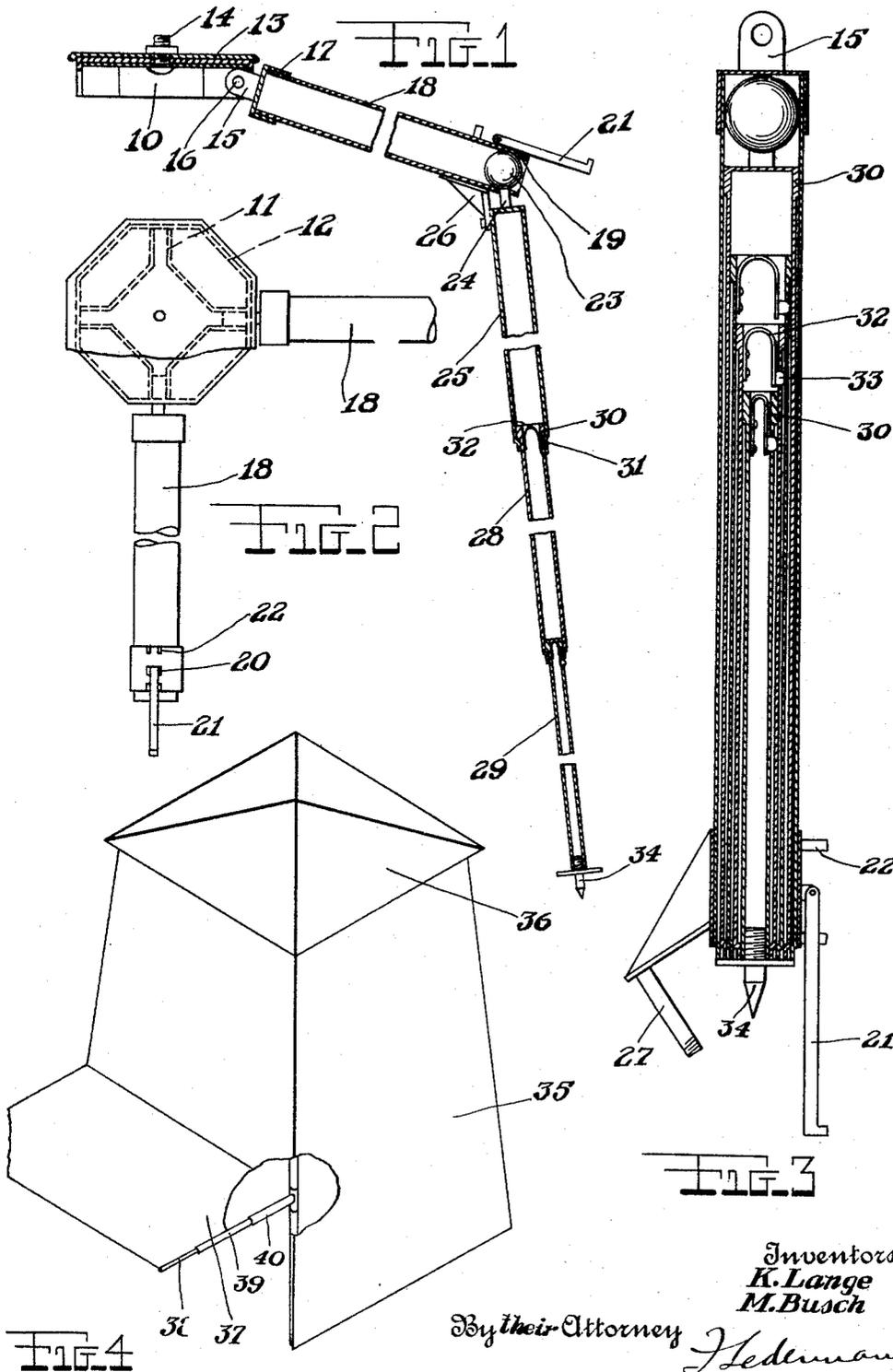
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TENT FRAME

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## UNITED STATES PATENT OFFICE

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## TENT FRAME

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The main object of this invention is to provide a novel type of tent frame over which a tarpaulin or canvas cover is adapted to be draped, and the frame is so constructed as to be completely collapsible into a compact bundle which may be conveniently carried in a haversack so that it may be useful after hiking. A rigid tent frame is provided which may be compactly folded and is composed of a number of telescoping sections, one interlocking in extended position with the other when the device is used.

The above and other objects will become apparent in the description below, in which characters of reference refer to like-named parts in the drawing.

Referring briefly to the drawing, Figure 1 is longitudinal sectional elevational view of a corner of the tent frame showing the same in extended position.

Figure 2 is a top plan view of Figure 1.

Figure 3 is a longitudinal sectional elevational view of one of the frame corners in telescoped position.

Figure 4 is a perspective view, showing the tarpaulin draped about the tent frame with one side thereof raised to provide a lean-to roof.

Referring in detail to the drawing, the numeral 10 indicates a spider which has a plurality of hollow arms 11 extending from its center. These hollow arms 11 are preferably four in number and are arranged at right-angles to each other. This spider 10 is enclosed by an inverted crown 12 which is capped by a cover 13. The spider 10, crown 12 and cover 13 are secured to each other through means of a threaded stud 14 in the manner shown in Figure 1. The crown 12 is provided with channels on its rim wall through which an ear 15 of the eave sections is inserted. The ear 15 is pivoted by a bolt 16 in the hollow arm 11 of the spider 10. The ear 15 is formed unitary with a collar 17 from which a tubular member 18 extends at an angle when the device is in mounted position. This tubular member 18 is preferably circular in cross section and its outer end is constricted, as indicated by the numeral 19. The upper portion of the tubular member 18

near its outer extremity is provided with a pair of spaced-apart hinge ears 20 between which an eave bar 21 is pivotally secured. This eave bar 21 may be retained in a position projecting beyond the end of the tubular member 18 or in overlapped position upon this tubular member 18 by resilient clips 22 mounted on the tubular member 18. The constricted portion 19 of the tubular member prevents the removal of a ball 23 which is slidable in said tubular member 18 and has connected thereto, through means of a stud 24, a hollow rod 25. The bottom of the tubular member 18 near its outer extremity is provided with a brace bracket 26 which is rigidly secured to the tubular member 18 and is provided with a stud 27 which passes through the upper end of the hollow rod 25 and secures this hollow rod 25 in arranged and orderly position when the frame is formed. The hollow rod 25 is adapted to slide into the tubular member 18.

The hollow rod 25 is adapted to receive a plurality of similarly formed units such as those indicated by the numerals 28 and 29, with either more or less to suit the height of the tent frame. The hollow rod 28 and all similar rods which extend from this rod 28 are provided with an enlarged flanged upper end 30 which seats on the constricted lower end 31 of the next higher member when these rods 25, 28 and 29 are in extended position. This construction is illustrated in Figure 1. All of the hollow rods continuing from the uppermost hollow rod 25 are provided with the flanged end 30 at their upper ends, and at their lower ends are constricted as indicated by the numeral 31 so that a smaller unit is slidably interlocked in a larger unit and cannot be removed. The upper ends of these rods 28 and 29 are each provided with a resilient doubled-over finger 32 which is secured to the member of which it forms a co-acting element and has a cam lug 33 which is adapted to pass through a slot within the wall of the unit to which it is attached, and is adapted, when the rods 25, 28 and 29 are extended, to project exteriorly of said rods 25, 28 and 29 when these latter are extended and assume a position immediately below the lower extremity of

the next higher member. The lowermost hollow rod, such as that indicated by the numeral 29, is provided with a peg 34 which is adapted to be driven into the ground and retain the frame in rigid position upon an area. When the frame has been formed a tarpaulin 35 is adapted to form the side walls which are draped over the tent frame, and a second member 36 forms a roof. This roof 36 overlaps the wall of the tent frame in order to provide an eave for the drainage of the surfaces of the roof 36. By providing one of the walls with a partly loose flap 37 an entrance roof or lean-to is provided by raising this flap 37 and supporting the corners of this flap 37 upon a plurality of telescoping tubes 38, 39 and 40 which have successively larger diameters in order to permit the insertion of one member into the other. One of the end tubes 40 is provided with a T-fitting which slips over one of the members or rods 38 and thereby supports the flap 37 in horizontal position to protect the entrance of the tent from the elements.

The device is adapted to form a rigid tent frame which may be constructed in a short time at any given spot and may be compactly folded, by telescoping the frame sections one into another, into a small bundle which may be conveniently carried upon hiking, hunting or camping trips. All of the corner sections, including the eave tubular units 18, with their members 21 attached thereto and the side support sections comprising the hollow rods 25, 28 and 29 or more sections if desired, telescope one into the other and are pivotally connected to the spider 10 so that when the device is folded the support members, which when extended comprise the members 25, 28 and 29 or more sections as illustrated in Figure 2, fold successively one into the other and then are rotated to a position where these folded sections assume a parallel relation and may then be enclosed in a bag or container to preserve the same.

Figure 3 shows the sections forming one corner of the frame in completely collapsed position, and this view encompasses one more hollow rod than does Figure 1, but it is to be noted that the number of sections required to construct a tent frame is not to be taken into consideration, as the number depends entirely upon the dimensions of the material used.

It is also to be noted that certain changes in form and construction may be made without departing from the spirit and scope of the invention.

We claim:

1. In a tent frame, a plurality of mutually telescoping units, a spider pivotally connecting one end of said units, said units comprising a tubular member adapted to form the roof frame, a brace bracket on said tubular

member adapted to form the roof frame, said tubular member projecting therefrom, a plurality of hollow rods telescoping successively one into the other, the largest hollow rod telescoping into said tubular member, said tubular member and said hollow rods having constricted open ends, an external shoulder formed on said hollow rods, said external shoulder being adapted to seat upon said constricted end of the next successively larger tube when said hollow rods are in extended position, a resilient finger mounted in said hollow rods, a cam lug on said finger passing through the wall of said rods and adapted to project therefrom, said cam lug being adapted to engage the extremity of the next successively large hollow rod to latch said hollow rods in extended position, and a ball projecting endwise from the largest hollow rod and movable in said tubular member whereby both members form a rotatable joint.

2. In a tent frame, a plurality of mutually telescoping units, a spider pivotally connecting one end of said units, said units comprising a tubular member adapted to form the roof frame, a brace bracket on said tubular member, pivoted hinge arms on said tubular member projecting therefrom, a plurality of hollow rods telescoping successively one into the other, the largest hollow rod telescoping into said tubular member, said tubular member and said hollow rods having constricted open ends, an external shoulder formed on said hollow rods, said external shoulder being adapted to seat upon said constricted portion of the next successively larger tube when said hollow rods are in extended position, a resilient finger mounted in said hollow rods, a cam lug on said finger passing through the wall of said rods and adapted to project therefrom, said cam lug being adapted to engage the extremity of the next successively large hollow rod to latch said hollow rods in extended position, a ball mounted on the largest hollow rod slidable in said tubular member, said tubular member being constricted to prevent removal of said ball from said tubular member, and whereby said largest hollow rod is swingable with respect to said tubular member.

In testimony whereof we affix our signatures.

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