

P. E. CORRELL.  
CONSTRUCTION OF TENTS.  
APPLICATION FILED APR. 14, 1916.

1,270,701.

Patented June 25, 1918.  
2 SHEETS—SHEET 1.

FIG. 1.

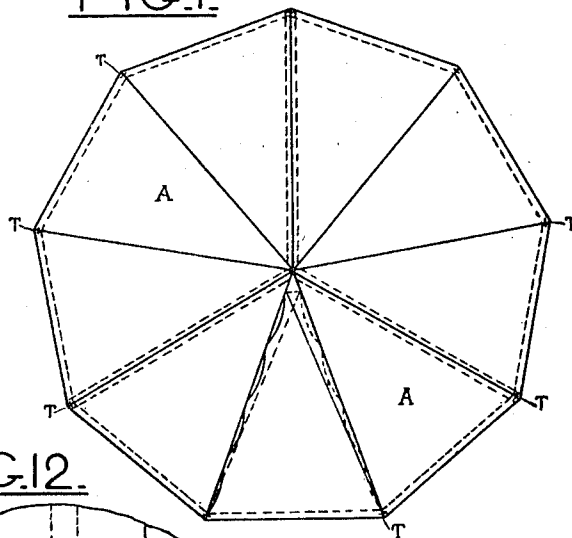


FIG. 12.

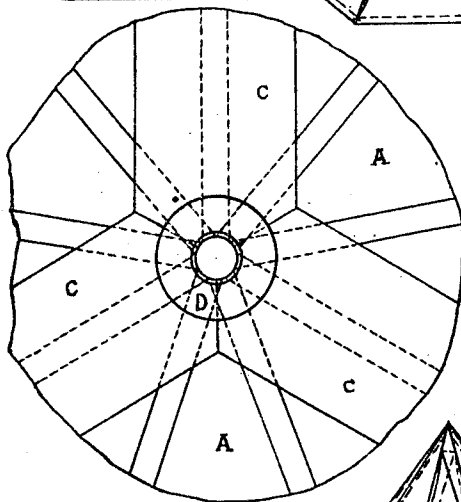


FIG. 11.

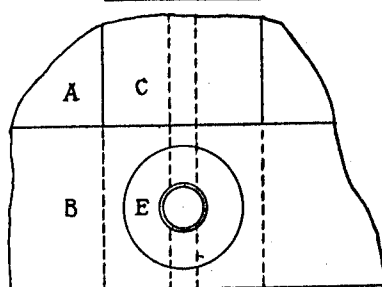
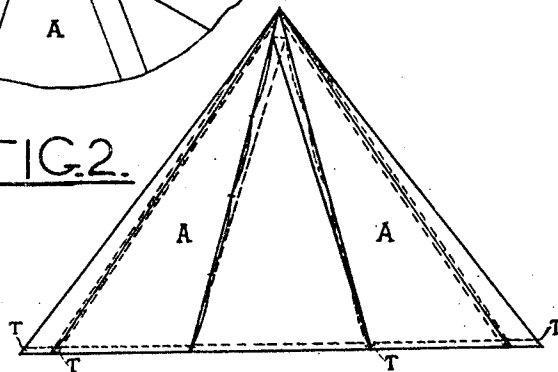


FIG. 2.



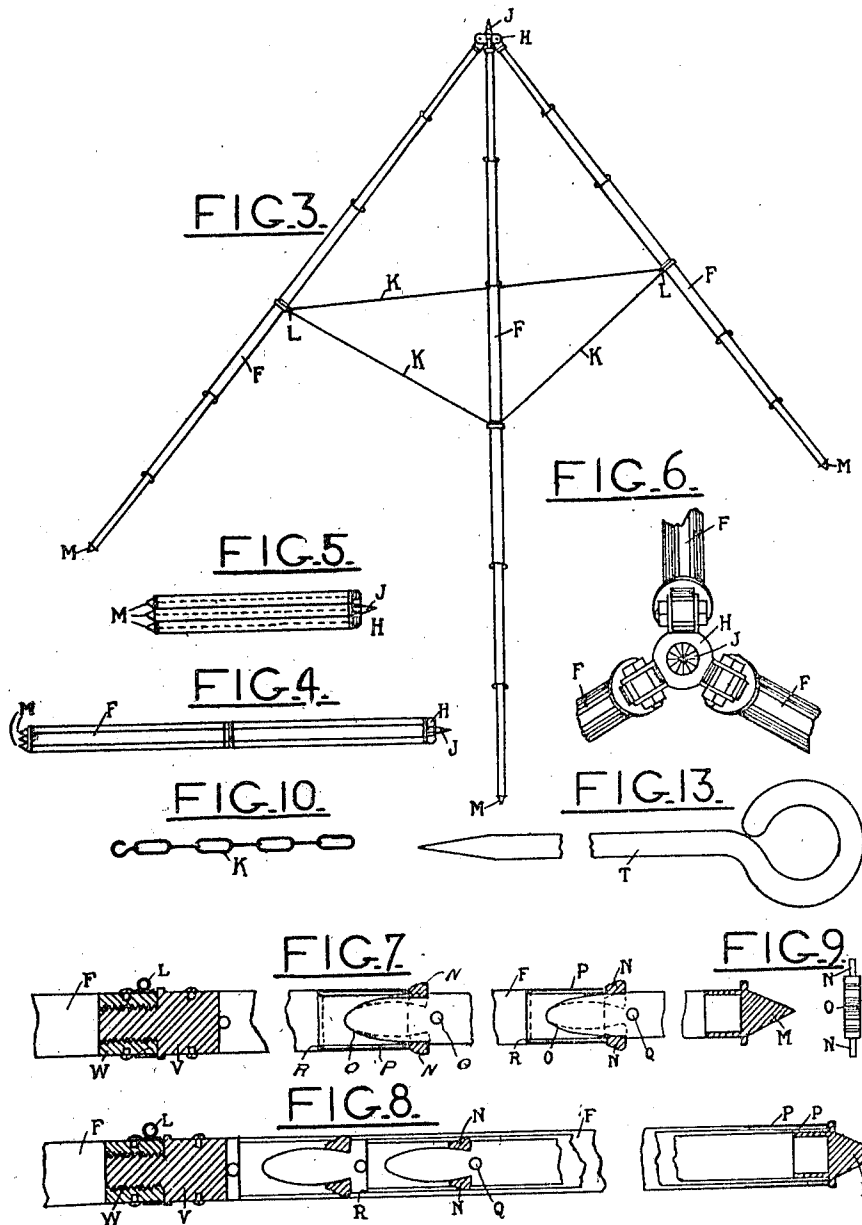
INVENTOR  
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BY *Mum Co.*  
ATTORNEYS

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2 SHEETS—SHEET 2.



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# UNITED STATES PATENT OFFICE.

PERCY EDWARD CORRELL, OF ADELAIDE, SOUTH AUSTRALIA, AUSTRALIA.

## CONSTRUCTION OF TENTS.

1,270,701.

Specification of Letters Patent.

Patented June 25, 1918.

Application filed April 14, 1916. Serial No. 91,061.

*To all whom it may concern:*

Be it known that I, PERCY EDWARD CORRELL, a subject of the King of Great Britain and Ireland, residing at North Terrace, Adelaide, State of South Australia, Commonwealth of Australia, have invented a certain new and useful Improvement in the Construction of Tents, of which the following is a specification.

10 This invention relates to certain improvements in the construction of tents.

The primary object of this invention is to provide an improved shelter-tent adapted for military, expeditionary and exploratory purposes where extreme compactness and lightness, consistent with weather efficiency, and facility of manipulation in erection and dismantlement, are matters of vital importance.

20 My invention consists in certain novel combinations and arrangements of parts, all as will be hereinafter described with reference to the accompanying drawings, in which:—

25 Figures 1 and 2 are plan view and front view respectively of a pyramidal shelter-tent constructed in accordance with my invention—erected—comprising a fabric and a specially constructed framework and set of nine pegs serving respectively to support and to anchor said fabric.

30 Fig. 3 represents (in perspective) said framework—set up. It comprises three specially constructed telescopically collapsible tubular poles of light gage metal pivotally attached to a headpiece provided with an upwardly projecting spike which engages an eyelet in the apex of the said fabric and coupled by light chains serving to facilitate the setting up of the framework in such manner as to insure the effective coöperation of the fabric therewith, as well as its rapid anchorage by virtue of the indications of the positions for three of the set of nine pegs afforded by the lower ends of the three tubular poles.

35 Fig. 4 represents the same framework with the tubular poles collapsed and closed together.

50 Fig. 5 represents the same framework rendered still more compact by the disconnection of the two series of telescoping elements of which each pole is composed.

55 Figs. 3, 4 and 5 are drawn to a somewhat larger scale than Figs. 1 and 2.

Fig. 6 is a plan view showing the attach-

ment of the three tubular poles of the framework to the spiked headpiece thereof.

Fig. 7 is an axial sectional view (somewhat diagrammatic) representing the lower portion of one of the poles of the framework with the elements extended, portions of the tubes being shown broken away.

Fig. 8 is a similar view showing the elements collapsed.

65 Fig. 9 is an end view of the locking device hereinafter described showing the metal dogs and spring strip of which said locking device is constituted.

Fig. 10 represents an end portion of one of the three chains coupling the poles of the framework: of which chains the lengths are equal and such that coöperation is insured as above indicated between fabric and framework when set up in accordance with the indications afforded by the tautness of such chains.

Fig. 11 is an inside view showing portion, at the bottom of one of the reinforced seams junctioning the sections, of the lower edge of the fabric, reinforced with strips of webbing, and provided with a metal eyelet to take one of the nine holding down pegs.

Fig. 12 is an inside view showing the apex of the fabric, reinforced with strips of webbing along three of the seams and provided with a metal eyelet to take the spike at the top of the framework.

Fig. 13 shows one of the nine pegs whereby the edge of the fabric is pegged to the ground: a portion of the peg being shown broken away.

Figs. 6 to 13 are drawn to a much larger scale than the other figures.

The fabric of my improved shelter-tent is formed of ten equidimensional triangular sections A two of which overlap to form a double-flap entrance as shown in the drawings. The lower edge is then reinforced by sewing thereto on the inside of the fabric a strip of webbing B. Three of the seams are similarly reinforced with webbing C as indicated by dotted lines in Figs. 1 and 2. In erecting the tent the reinforced seams are placed over the poles of the framework in order to prevent wear of the fabric on the projecting locking-dogs thereof hereinafter described. Metal eyelets are clenched into the fabric, through the reinforcing webbings, in the peak and at the bottoms of the seams which juncture the triangular sections A of which the fabric is formed. The eyelet

D in the peak is engaged by the upwardly projecting spike of the framework: the others E serve to take the holding down pegs. The flaps of the entrance are fastened by  
 5 hooks and eyes in accordance with well known practice.

The fabric is preferably a closely woven cotton material such as is largely used for  
 10 fine yacht sails. In the case of a shelter tent adapted for the accommodation of two or three men as illustrated a grade of material weighing 3-4 ozs. per sq. yd. is preferred. Heavier grades may be used for shelter-tents adapted for the accommodation of a larger  
 15 number of men.

In order for the fabric to set taut its peak must be supported at a definite height above the ground and its nine pegs must lie equidistantly from one another on the circumference of a circle of definite diameter of  
 20 which the center is the projection on the ground of the point of support of the fabric peak: these factors are determined by the dimensions of the sections of the fabric: and it is to insure compliance with these necessary conditions that the coupling chains K  
 25 are used: said coupling chains in no way contribute to the support of the fabric or the strength of the framework, and may be disconnected without prejudice thereto once  
 30 the tent is erected, when their function in facilitating the erection of same will have been accomplished.

The framework of my improved shelter-tent comprises three specially constructed  
 35 telescopically collapsible tubular poles F of metal of light gage pivotally attached to a headpiece H provided with an upwardly projecting spike J and coupled by light  
 40 chains K serving to limit the spread of the poles to a predetermined extent: the headpiece H is provided with three sets of radially projecting jaws carrying bolts and nuts for the attachment of the tubular poles  
 45 each of which is provided at its upper end with a plug provided with a perforated extension through which passes one of the said bolts and which is adapted to move freely between the said jaws: each of the  
 50 poles is provided with an eye L for the attachment of said chains K: the bottom end of each pole is fitted with a pointed plug M which insures a secure grip of the ground and protects the bottom of the pole, preventing  
 55 also the entrance of sand, etc.

Each of the telescopically collapsible tubular poles F of the frame work of my improved shelter-tent comprises two series of progressively telescoping elements joined to  
 60 form a pole of which the cross-section diminishes progressively from its center toward its ends, which construction insures for a minimum of metal therein a maximum resistance to flexure—on which is dependent  
 65 the rigidity and efficiency of the frame-

work—since the bending moment to which the pole is subjected as a member of said framework is greatest at its center: the elements of each series so progressively decrease in cross-sectional area as to permit of  
 70 their telescoping progressively each within that next larger: successively telescoping elements being provided with an automatic locking device whereby they are automatically locked when extended one with regard  
 75 to the other, such automatic locking device being so designed as not to interfere, when released, with the progressive telescoping of the elements of each such series one within the other, and the lengths of the telescoping  
 80 elements of each of the series so progressively decreasing as to insure their outer ends coming flush with one another when the elements are telescoped.

The locking device illustrated in the drawings is constituted by two metal dogs N carried upon the ends of a U-shaped strip of  
 85 spring metal O within the inner element, the said dogs being automatically projected through slots in the inner element so as to engage the edge or end of the outer element  
 90 when the two elements shall have attained the extended position. The dotted lines in Fig. 7 indicate the position of the dogs N and their spring strip O when they are  
 95 pressed back to permit the elements to telescope; the spring strip being maintained in position in the end of the inner element by the engagement of the tips of its dogs in the slots of that element. Each of the elements,  
 100 with the exception of the smallest of each series, is provided with an internal bush P at one end (indicated by the heavier lines) within which the element next smaller slides freely, yet snugly and without shake, and  
 105 with an indentation Q near its opposite end, and each of the elements, with the exception of the largest of each series, is provided also with an external flange R adapted by engaging the edge of the bush or the indentation in the next larger element to thus limit the extension or closure respectively of the elements relatively to one another. The provision of the said bushes P insures that  
 110 dents in the tubular elements do not in general appreciably affect the facility with which such elements may be telescoped. The dogs N of the locking device within the inner of the two telescoping elements engage the end of the outer tube simultaneously  
 115 with the engagement of the flange on the inner tube with the end of the bush of the outer tube, in which the inner tube slides: the locking devices are wholly concealed and protected from damage when the elements  
 120 are telescoped.

The peg T used for the anchorage of the fabric of my improved shelter-tent is formed from metal rod, preferably mild steel, with  
 130 a point to facilitate driving at one end and

with an eye to engage the eyelets in the fabric at its other end.

My improved shelter-tent may be very easily and quickly erected by one man without assistance, if necessary in the darkness of night: it is characterized by the self-stability of its fabric-supporting member, in contradistinction to those types of tents in which the fabric and supporting member are mutually interdependent for the stability of either as in the well known army bell-tent in which the fabric is supported by a center pole which is itself dependent for stability and the maintenance of an upright position on the guying action of the strained fabric.

In pitching my tent, the supporting framework and the fabric are erected, not simultaneously, but as distinct and successive operations; the framework is first erected, the poles being placed as far apart as the chains will allow, the fabric is placed in position thereon, the pegs are driven, and the fabric finally strained up drum-tight from within the tent by a slight adjustment of the spread of the various poles, which adjustment effects a corresponding alteration in the height of the apex which supports the tent fabric.

When the fabric is strained up the poles of the framework (being made from metal of very light gage) are somewhat flexed by the stresses imposed thereon: the framework is then characterized by a resilience which effects an automatic compensation for alterations in the tension of the tent fabric brought about by alterations in the atmospheric humidity, etc.: the drawing of the tent-pegs, or "puckering" of the fabric, are thus entirely prevented. Moreover, this resilience greatly relieves the shocks of heavy gusts of wind, so that my improved tent is particularly adapted to withstand a heavy storm or gale, by virtue of rather than in spite of the remarkably light construction of its supporting framework. My improved shelter-tent is thus characterized by the efficiency with which the tension of the fabric thereof is effected and automatically maintained: and a very light fabric, if closely woven, thus tautened, effectually sheds even the heaviest of rains.

My improved shelter-tent when packed for transit is very compact and light. The framework is preferably wrapped within the fabric, together with the pegs, and is thus protected from damage during transit: the whole forms a very small parcel weighing in the case of a shelter-tent adapted for the accommodation of two or three men as illustrated and described, only a few pounds, which may be conveniently carried in a soldier's knapsack, or on the carrier of a cycle.

Another advantage of my improved shel-

ter-tent, in addition to its lightness and compactness, and its weather-efficiency and the facility with which it may be erected and dismantled, is that the floor-space is entirely free from encumbrance by the framework so that its most advantageous utilization is thus permitted.

What I claim is:—

1. An improved tent comprising a cover tapering to a point and having an eyelet in its point and eyelets in its lower edge, and a framework comprising three poles pivotally attached to a headpiece provided with an upwardly projecting spike and coupled by lengths of chain, each pole comprising two series of progressively telescoping elements of light gage metal joined to form a pole of which the cross-section diminishes progressively from its center toward its ends, successive elements being provided with an automatic locking device whereby such elements are automatically secured in position when extended, such locking device consisting of a dog or dogs carried by a spring within the inner element and adapted to engage the outer element when projected by said spring through a slot or slots in the inner element: and pegs adapted to engage the eyelets in edge of fabric.

2. A tent: a framework comprising a head piece having an upwardly projecting spike, and three telescopically collapsible tubular poles pivotally attached at their upper ends to the headpiece and having light coupling chains to limit their spread and having at their lower ends pointed plugs (one plug for each pole), each of said poles comprising two series of progressively telescopic elements of light gage metal joined to form a pole of which the cross section diminishes progressively from its center toward the ends, and successive telescopic elements being provided with automatic locking devices whereby they are automatically secured in position when extended.

3. A tent-framework comprising a head-piece, and a plurality of poles pivotally attached to the headpiece; each pole comprising two series of progressively telescoping elements of light gage metal joined together to form a pole of which the cross-section diminishes progressively from its center toward its ends, the successive telescopic elements being automatically secured in position when extended by a locking device consisting of a dog or dogs carried by a spring within the inner element and adapted to engage the outer element when projected by said spring through a slot or slots in the inner element.

4. A tent comprising a plurality of poles hinged to a head piece having a pin projecting from its upper face, and a cover formed of a plurality of triangular sections of fabric secured together to form a pyramidal

body reinforced on the inner side at sundry  
of the seams and having an eyelet in its peak  
to receive the pin of the head piece, the  
lower edge of the body being reinforced and  
5 provided with a plurality of eyelets to re-  
ceive anchoring pegs.

In testimony that I claim the foregoing as

my invention I have signed my name in the  
presence of two subscribing witnesses this  
4th day of March, 1916.

PERCY EDWARD CORRELL.

Witnesses:

ARTHUR GORE COLLISON,

KAREN EMMIE WOLLASTON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,  
Washington, D. C."