

April 5, 1927.

D. T. ABERCROMBIE

1,623,154

TENT

Filed Feb. 27, 1926

2 Sheets-Sheet 1

Fig. 1.

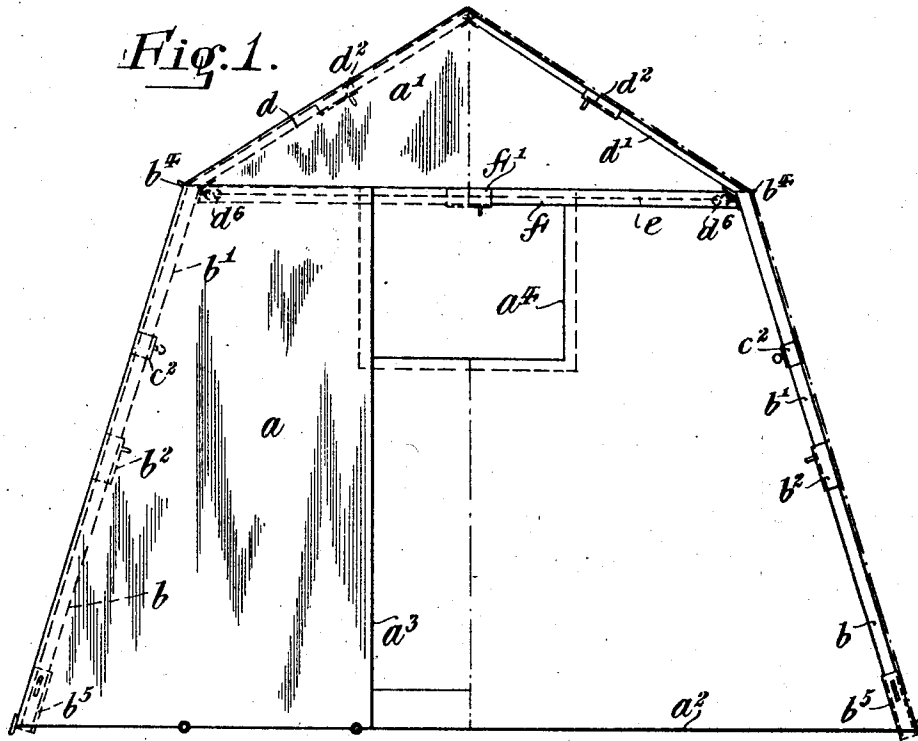
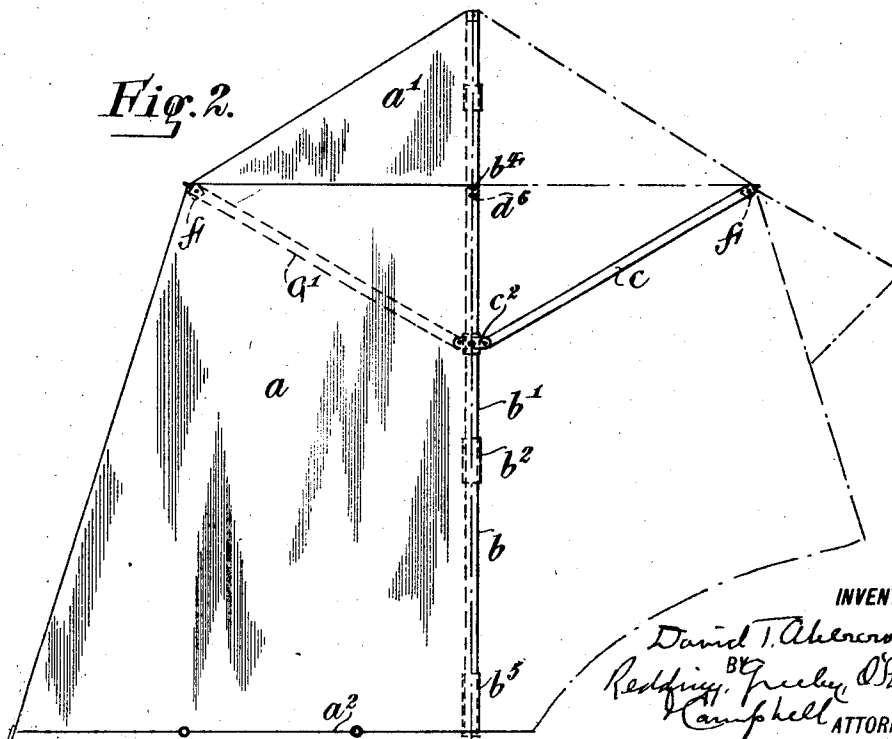


Fig. 2.



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2 Sheets-Sheet 2

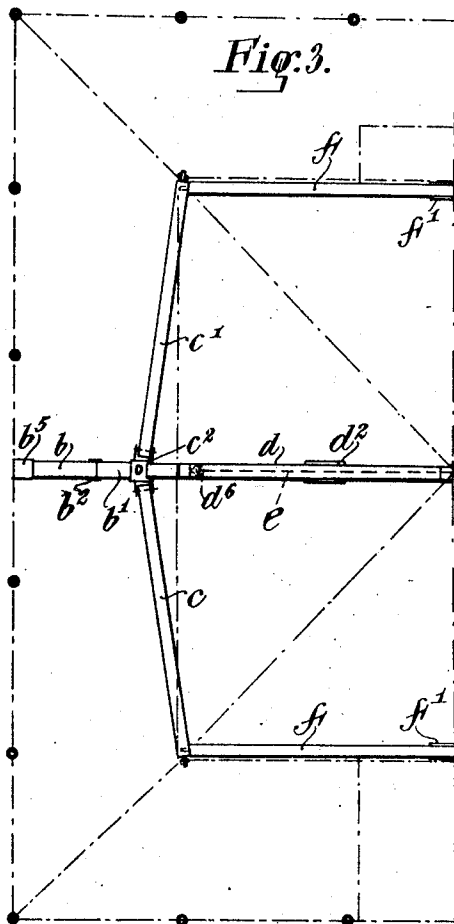
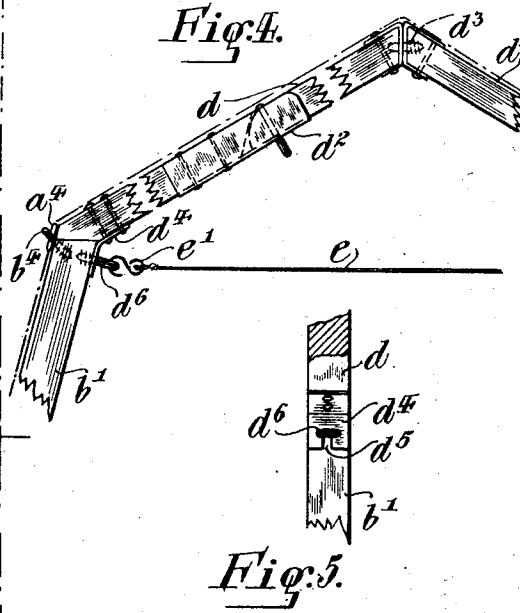


Fig. 5.

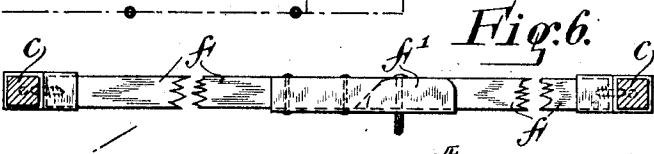
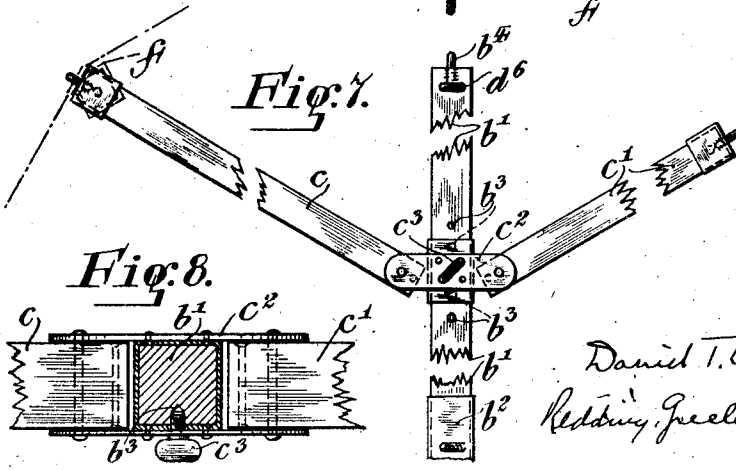
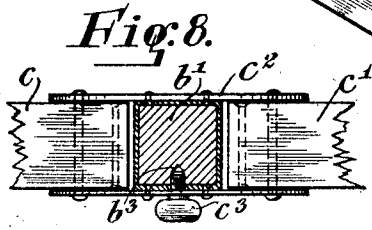


Fig. 9.



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TENT.

Application filed February 27, 1926. Serial No. 91,038.

This invention has for its object to produce a collapsible tent frame of improved construction which shall be capable of being set up quickly, even within the tent cloth, shall be self-sustaining without the use of 5 guy ropes, shall be rigid when set up and strong enough to resist all ordinary wind pressures, shall be capable of being collapsed or knocked down easily when desired, and shall be capable of being packed in small 10 compass for convenience in transportation. The frame has no center pole and no corner standards. It has at two sides only, members capable of sustaining vertical thrust and it has at two sides only, at the eaves, 15 rigid horizontal members. It is shown in the drawings as applied to a four-sided tent which is square on the ground but obviously is capable of application to tents of other 20 forms or types. It is preferably, although not necessarily, employed for tents which have the ground cloth sewed in.

The invention will be more fully explained hereinafter with reference to the accompanying drawings in which it is illustrated and in which:

Figure 1 is a view in front elevation of a tent with the improved frame in place within the tent cloth, a portion of the front wall 30 and top of the tent being removed so as to permit frame members to be seen.

Figure 2 is a view in elevation as seen from the right hand in Figure 1, a portion of the side wall and top being removed to 35 disclose frame members within.

Figure 3 is a top view of one half of the frame, the outline of the tent cloth being indicated by broken lines.

Figure 4 is a detail view of a portion of the frame, showing particularly the top or head members in their relation to each other and to one of the side members, with the 40 tension member also shown, the frame members being broken out and broken away to save space.

Figure 5 is a detail view of the connection between the wall member and the roof member shown in Figure 4.

Figure 6 is a detail view of one of the horizontals or eaves members, partly broken 50 out to save space.

Figure 7 is a detail view of one of the wall frames, also broken out to save space.

Figure 8 is a detail view on a larger scale 55 of the connection between the spreading and the vertical member of the wall frame.

Figure 9 is a detail view showing the foot of the vertical member of one of the wall frames.

In the embodiment of the invention illustrated in the drawings the tent cloth is 60 properly made up to form a tent square in ground plan, with walls a inclined slightly from the vertical, with a pyramidal top a^1 , a sewed in bottom a^2 , a door at a^3 in one wall and a window opening a^4 in the other 65 wall. Suitable closures for the door opening and the window opening may be provided and are not necessary to be shown.

Each of two and only two opposite side 70 walls is provided with a sustaining frame which consists of a vertical member, preferably composed of two parts b and b' preferably jointed, as at b^2 , with a joint which is hinge-like or capable of being flexed and 75 may be of the same construction as that shown in a copending application, Serial No. 75,528, filed December 15, 1925, so that the frame shall be capable of being flexed and sprung into position from within and 80 two spreader arms c and c' , which are pivoted to a slide c^2 arranged to be held in adjusted position on the vertical member b' , as by a pin c^3 in coaction with one or 85 another of several holes b^3 formed in the member b' . Each member b' may be provided at its upper end with a pin b^4 to engage an eye or grommet in the tent cloth, as indicated at a^4 in Figure 4.

Roof or top members d and d' , each preferably jointed as at d^2 with a hinge-like joint so that they shall be capable of being flexed and sprung into position from within are 90 preferably adapted for engagement with each other at the peak, as by a pin indicated at d^3 , and are also adapted for engagement 95 at their lower ends with the corresponding vertical members b' of the wall frames. As shown, each roof or top member d or d' has secured thereto a bent metal plate or 100 bracket d^4 which is slotted, as at d^5 , for engagement with the shank of a screw eye d^6 . The opposite screw eyes d^6 also form convenient points of attachment for the tension member e , which may be a light 105 cable or wire, which has at each end a hook e' for engagement with the corresponding screw eye d^6 . The roof members, d , d' and the tension member e thus form a truss for the support of the tent top, for which no 110 other roof members are required.

As indicated hereinbefore, wall frames b ,

b' , c , c' are provided for two opposite walls only. The spreader arms c , c' spread the tent cloth in the planes of these walls, the tension being adjusted by adjustment of the slide c^2 . The spreader arms support at their upper extremities, from one wall frame to the other, horizontal or eaves members f , f , which are preferably jointed, as at f'' , with a hinge-like joint so that they shall be capable of being flexed and sprung into position from within and are adapted in length, when extended, to the length of the top of the tent wall, so that the tent cloth is thus spread at the top of the wall, along these two sides, by the horizontal or eaves members f , f , and along the other two sides by the spreader arms c , c' of the wall frames.

As shown in detail in Figure 9, each vertical member b of each wall frame is preferably provided with a resilient foot for the purpose of maintaining the walls of the tent cloth under moderate tension at all times and to accommodate shrinkage. As shown, a socket b^5 is mounted slidably at the lower end of the member b and a spring b^6 is interposed between the end of such member and the lower end of the socket. The socket rests upon the surface of the ground or upon the sewed in bottom of the tent and is not intended to be driven into the ground.

It will be understood that the tent frame alone is incapable of standing by itself, without the coaction of the tent cloth, which is pinned as usual to the surface of the ground or to the tent floor upon which the tent is placed.

In setting up the tent, the tent cloth is laid out and pinned to the ground or floor. Then the members of the frame are taken within the tent, extended and engaged one with another as already indicated, the tent top being raised and the side walls put under tension as the frame is assembled. The work is done wholly from within and no guy ropes are required on the outside, the tent and frame, when assembled, being entirely self-supporting. Although the longer frame members are preferably jointed, for convenience in packing the frame for transportation and also for convenience in erect-

ing the tent, it will be understood that such jointing of the frame members is not essential. It will also be understood that although some of the frame members are shown as provided with pins to engage eyes in the tent cloth, such engagement between the frame and the tent cloth is not essential as the frame members, when the tent is erected, are held by pressure in place within the tent cloth.

Although the tent has been shown and described herein as provided with the sewed in bottom or sod cloth with the vertical member of each wall frame resting on the sod cloth, it is obvious that the tent may be made up with or without a sod cloth, as the manufacturer or user may prefer and that the vertical members of the wall frames may also be arranged to rest on the ground or on the sod cloth or on the edge of the tent walls or some part thereof, as may be desired.

It will be understood also that various changes in details of construction may be made to suit different conditions of use and especially to suit different styles or types of tents and that the invention, therefore, is not restricted to the particular construction shown and described herein except as pointed out in the accompanying claims.

I claim as my invention:

1. A tent frame comprising opposite wall frames including spreader arms, horizontal members supported by the spreader arms of the wall frames, and a truss-like top frame supported by the wall frames, the separable top frame comprising top members engaged with the wall frames and with each other at an angle to form a peak.

2. A tent frame comprising opposite wall frames including spreader arms, horizontal members supported by the spreader arms of the wall frames, and a truss-like top frame supported by the wall frames, the top frame comprising separable top members engaged with the wall frames and with each other at an angle to form a peak, a tension member, and means for connecting the tension member to brace the top frame members.

This specification signed this 26th day of February A. D. 1926.

DAVID T. ABERCROMBIE.