

E. M. TURNER.
Tents.

No. 137,579.

Patented April 8, 1873.

Fig. 1.

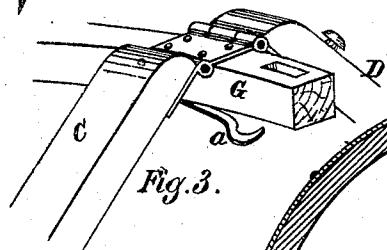
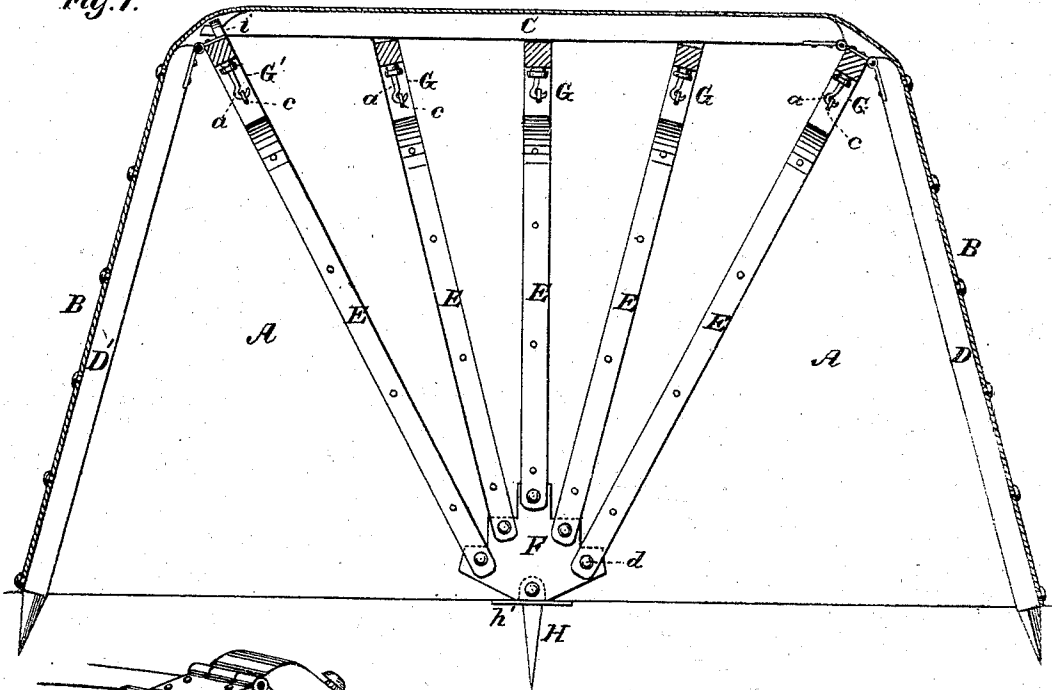


Fig. 3.

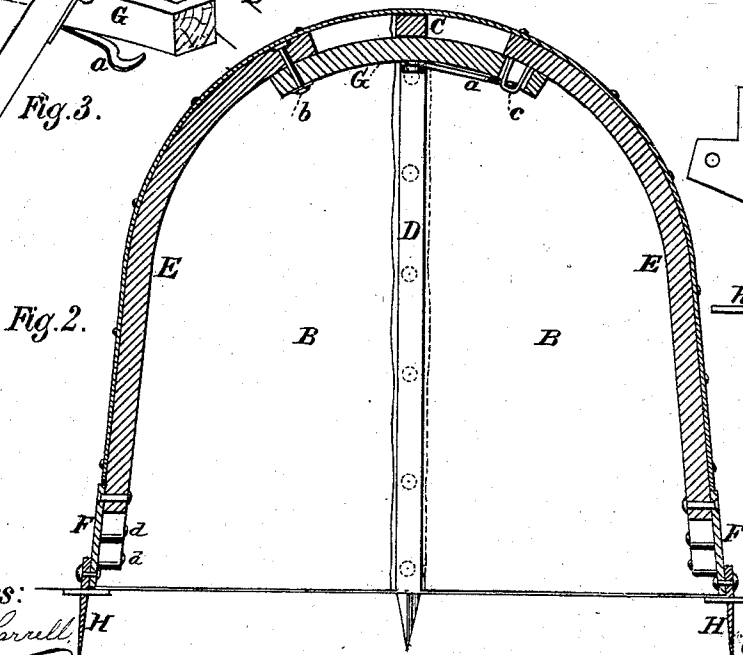


Fig. 2.

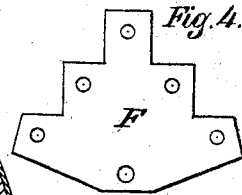


Fig. 4.

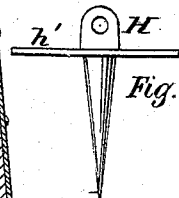


Fig. 5.

Witnesses:

Ida M. Farrell
W. J. Bromwell

Inventor:

Ephraim M. Turner
By John S. Key
Att'y

UNITED STATES PATENT OFFICE.

EPHRAIM M. TURNER, OF FORT WORTH, TEXAS.

IMPROVEMENT IN TENTS.

Specification forming part of Letters Patent No. **137,579**, dated April 8, 1873; application filed December 5, 1872.

To all whom it may concern:

Be it known that I, EPHRAIM M. TURNER, of Fort Worth, in the county of Tarrant and State of Texas, have invented certain new and useful Improvements in Military Tents, of which the following is a specification:

My invention relates to folding tents for military and other purposes; and the invention which I have made therein consists in so constructing the frame-work support of the tent and connecting its several parts by joints, whereby the side bow-ribs of the tent may be expanded like the leaves of a fan from a picket-pin fastening, and thus form the sides of the tent, the said pivoted bows being connected at their arched tops by segmental braces which are capable of being disconnected and folded with the side bows, while the roof-tree is supported upon said segmental connecting-braces, to one of which braces, at one end of the tent, it is hinged, while at the other end it is locked in the manner of an eyebolt or dowel-pin to the extreme segmental brace so as to render it detachable therefrom, the two tent-poles or end supports being hinged to the extreme segmental braces, whereby the aforesaid construction and connection of parts renders the erection and taking down of the tent both easy and convenient; and, when taken down, its several parts may be folded over upon and within one another, so as to form two separate, distinct, and compact side frames resting upon the canvas, the flies of which are folded over each end upon each side frame, when the two frames thus covered and inclosed by the canvas are then lapped over one upon the other so as to form a figure resembling an ordinary house-bellows. A more accurate and detailed construction of this tent and its mode of erection and taking down will be hereinafter given.

In the accompanying drawing, Figure 1 represents a vertical longitudinal section of a military tent embracing my invention as erected. Fig. 2 represents a vertical cross-section of the same. Fig. 3 represents a detached view, in perspective, of one of the segmental arch-bracing ties and its connection with one end of the roof-tree and the upper end of one of the tent-poles. Fig. 4 represents a detached view of the foot-plate to which the side bows are pivoted, and Fig. 5 a detached view of

the picket-pin to which the side is secured by pivot.

My improvement consists chiefly of two side frames, consisting of a number of ribs, E, bowed at their upper ends so as to form the rafters for the tent. A space is left between the ends of the rafters, and they are connected together in pairs, one on each opposite side, by means of segmental tie-braces G, connected by one end to the end of the bowed rafters by means of a pivot-bolt, *b*, and by the other end to the opposite bowed rafter by means of a staple, *c*, passing through a slot in the tie-brace G, to which it is secured by a hook, *a*, so as to form an arched roof for the support of the canvas, forming in its cross-section a semi-circle at the top, to the radiuses of which the said bow, rafters, and segmental tie-braces conform, as clearly represented in Fig. 2 of the drawing. The side ribs E are pivoted at their lower ends to a plate, which is common to the rest, in the manner of steps, the center one being the shortest and the outside ones the longest, so that when erected to support the canvas they maintain radial positions with said foot-plate, and constitute the middle and end top supports of the canvas, as clearly shown in Fig. 1 of the drawing. The foot-plates F are pivoted to the upper ends of picket-pins H, and the pins are driven into the ground to hold the foot-plates F in position, and are braced by plates *h'*, which rest upon the surface of the ground when the picket-pins are driven home. The tent-poles D D' are hinged at their upper ends, one to the end segmental tie-brace G and the other to the other end tie-brace G; and to the first-named outer tie-brace the roof-tree C is also hinged, as shown at the upper right-hand corner of Fig. 1, and also in Fig. 3, while the opposite or free end of said roof-tree is secured in a staple or loop, *i*, upon the upper surface of the end tie-brace, as also shown in Fig. 1, so that the said roof-tree is thus locked in position with the segmental tie-braces, upon which it rests within the space between the ends of the bowed side ribs, as shown in Fig. 2. The tent-poles therefore, being driven into the earth, support the ends of the tent, and are provided with buttons, to which the flies may be fastened, while the sides of the tent are supported

by the side frames before described, producing a tent having the form of a section of an arch roof with full-bowed ends, thereby obtaining a tent with larger room than any hitherto in use.

In erecting the tent the manner is clearly shown in the drawing; but the construction of the tent above stated gives it special advantages in folding for transportation. To do this the tent-poles are withdrawn and the picket-pins of the bow-ribs are also withdrawn, the tent turned upside down or upon its side, and the segmental tie-braces unhooked from the side ribs, turned upon their pivots *b* so as to fold them in the line of the bow-ribs, to which they are pivoted. The right-hand tent-pole is then folded with the side ribs to which its segment is pivoted, and the roof-tree is released from the loop of the left-hand brace-tie and folded over with the right-hand tent-pole. The side ribs are then collapsed together upon their pivots, the flies folded one upon the other upon said side frames, and the two latter then folded over the one upon the other, with the flies embracing and covering each side frame with all their parts, thus forming the figure above described, in which condition it may be tied or packed in a box ready for transportation.

Having thus described my invention, I claim—

1. The combination, with a tent-canvas, of the side-pivoted bowed ribs *E*, with the foot-plates *F*, segmental pivoted brace-ties *G*, and the roof-tree *C*, constructed and arranged substantially as herein described.

2. The roof-tree *C*, hinged at one end to the segmental tie-brace *G*, and locked at its other end to the other extreme tie-brace *G*, to allow it to be separated from the latter and folded over with the side rib to which it is hinged, substantially as herein described.

3. The tent-poles *D D'* hinged to their respective end tie-braces *G* to allow them to be folded with the side frames, substantially as herein described.

4. The roof-tree *C*, arranged within the space between the ends of the extreme side bow-ribs *E* and supported upon the intermediate segmental brace-ties, substantially as described.

5. The combination, in a tent, of the side bow-ribs *E* with the foot-plates *F* and pivoted picket-pins *H*, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two witnesses this 10th day of June, A. D. 1872.

E. M. TURNER.

Witnesses:

A. T. HOWELL,
W. F. BAMBURG.