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N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

George B. Adams. By atty A.B. Stoughton

# UNITED STATES PATENT OFFICE.

GEORGE B. ADAMS, OF CAMBRIDGE, ASSIGNOR TO HIMSELF, AND JAMES M. STONE, OF CHARLESTOWN, MASSACHUSETTS.

## IMPROVEMENT IN SUPPORTING TENTS.

Specification forming part of Letters Patent No. 33,923, dated December 10, 1861.

To all whom it may concern:

Be it known that I, GEORGE B. ADAMS, of Cambridge, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Tents; and I do hereby declare the following to be a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents in perspective mytent in one of its forms, it being susceptible of change, as will be explained. Fig. 2 represents the center pole and braces by which the canvas is held up, supported, and adjusted.

There are several varieties of what are known as the "umbrella-frame tents," in which the braces are fastened to the center pole or slide thereon, being fastened to a ring, sleeve, or boss that moves on the center pole. These tents are objectionable on several accounts, so much so as not to be used to any extent in the army. In some of them the canvas must be fastened to the frame. These cut very much by transportation. Those having doublehinged braces fast to or sliding on the conter pole or both are inconvenient to handle, set up, or repair in camp should any part become broken, which from their rough usage is very liable to happen, and from these causes alone fail to go into use. In those which have braces hinged to the center pole at points near, say, where I propose to rest my braces, there is great difficulty when the canvas becomes wet by rain or moisture and shrinks in relieving it or in diminishing the circumference of the tent where the braces rest against the canvas, as all must move together. My object has been to preserve this form of tent, but at the same time to obviate the objection heretofore made to the frames which gave this form to the tent.

with the center pole and detachable braces the making of grummet-holes in the canvas to receive the ends of the braces, as will be explained.

A is a center pole, which may be four or more sided or with as many sides as there are to be braces, and having a tenon or pin a inserted in its top of wood or metal, which passes through a grommet-hole in the apex of the covering, and upon the top of this pin a may be placed the cowl b, which protects the ventilating-holes in the canvas, said cowl being held in place by cords. On the sides of this center pole are formed should red recesses c, into which one end of the braces B are respectively placed, the other ends of said braces being furnished with tenons or pins e, which pass through grommet-holes in the canvas, as shown at f, Fig. 1. The pins e, as well as the shoulders or notches c, may be of metal, so as not to be broken or split out. There being a series of these recesses to hold the heels of the braces, the said braces may be set up higher, so as to expand the tent more or lowered to relieve the canvas when it becomes wet, and this raising and lowering can be done by one person, moving one brace at a time, without supporting the whole weight of the canvas and braces, as would be the case if the braces were hinged. The braces B in their detachable condition afford the same facilities for stowage as though they were hinged to the center pole, while for taking down, putting up, adjusting, or for transportation they are much better, as they are in point of economy much cheaper and more easily repaired than any of the hinged frames of which I have knowledge. The main cover of the tent B is secured by cords g and pins h, and the skirt part C is held down by cords *i* and pins *n*, so that the skirt part may be raised to ventilate the tent.

My invention consists in having the braces detachable from the center pole and adjustable thereon, so that the top of the tent may be spread out by said braces or contracted at pleasure and without moving all the braces at once, as must be the case when they are hinged to the center pole or to a sleeve or slide on the center pole, and in connection

Instead of a grommet-hole for the braces it may be a thimble or countersunk plate, which will afford a sufficient hold for the brace, and thus avoid making an opening through the canvas.

By fastening the cowl by cords and hanging it onto the pin a it acts like a chimneycap. The wind blowing on one side against the tent and raising the leeward side, it brings

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the apex toward the wind and increases ven- | of shouldered recesses tilation.

Having thus fully described my invention, what I claim therein as new, and desire to secure by Letters Patent, is—

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Supporting a tent-cover on a center pole by means of detached braces whose inner ends are held and made adjustable by means

of shouldered recesses on said center pole and whose outer ends pass through grommet holes in said cover, as herein represented and for the purpose set forth.

GEORGE B. ADAMS.

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Witnesses:

Alfred B. Ely, A. H. Evans.

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