

May 29, 1923.

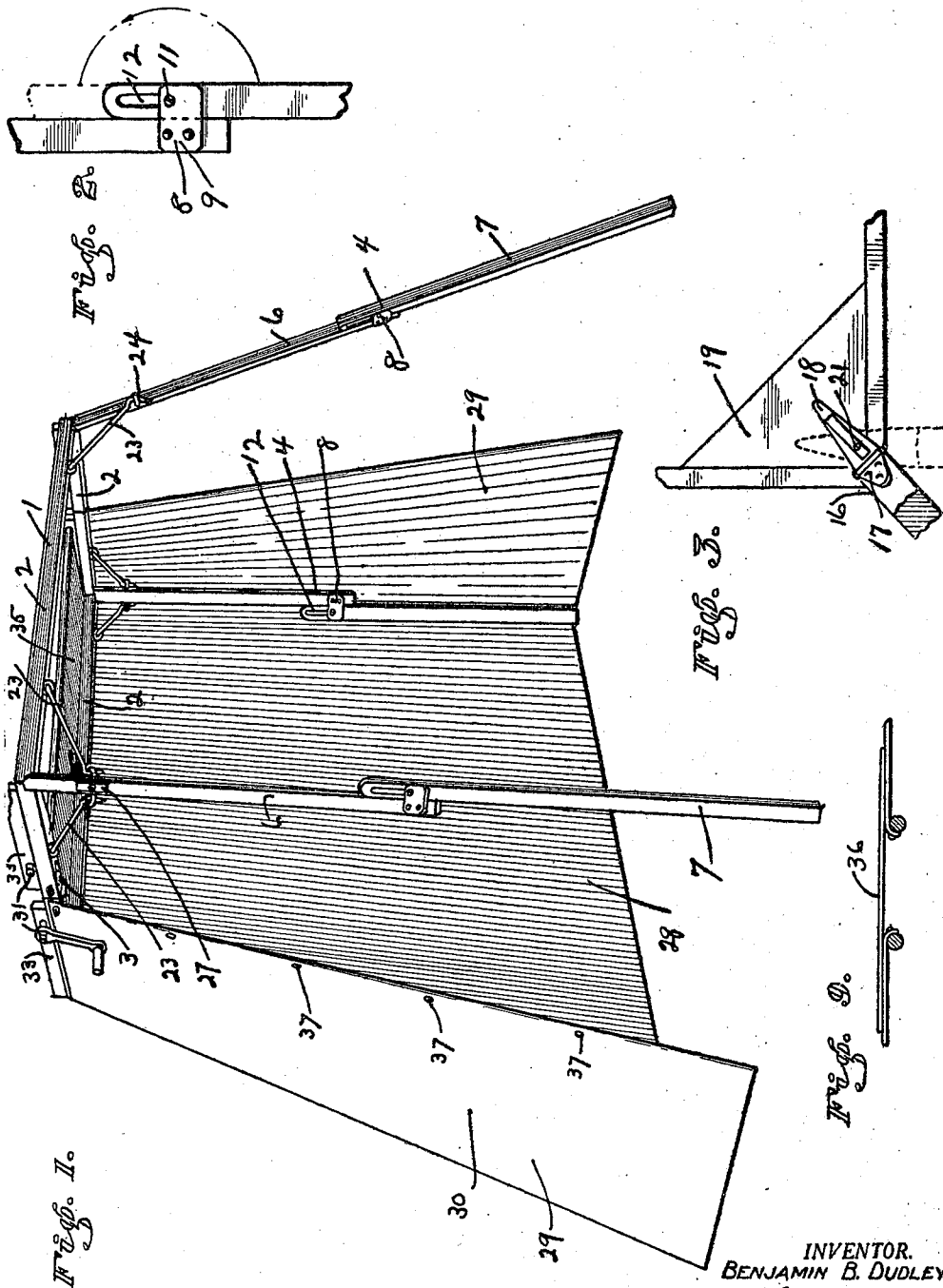
1,456,918

B. B. DUDLEY

FOLDING TENT

Filed Aug. 24, 1921

3 Sheets-Sheet 1



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FOLDING TENT

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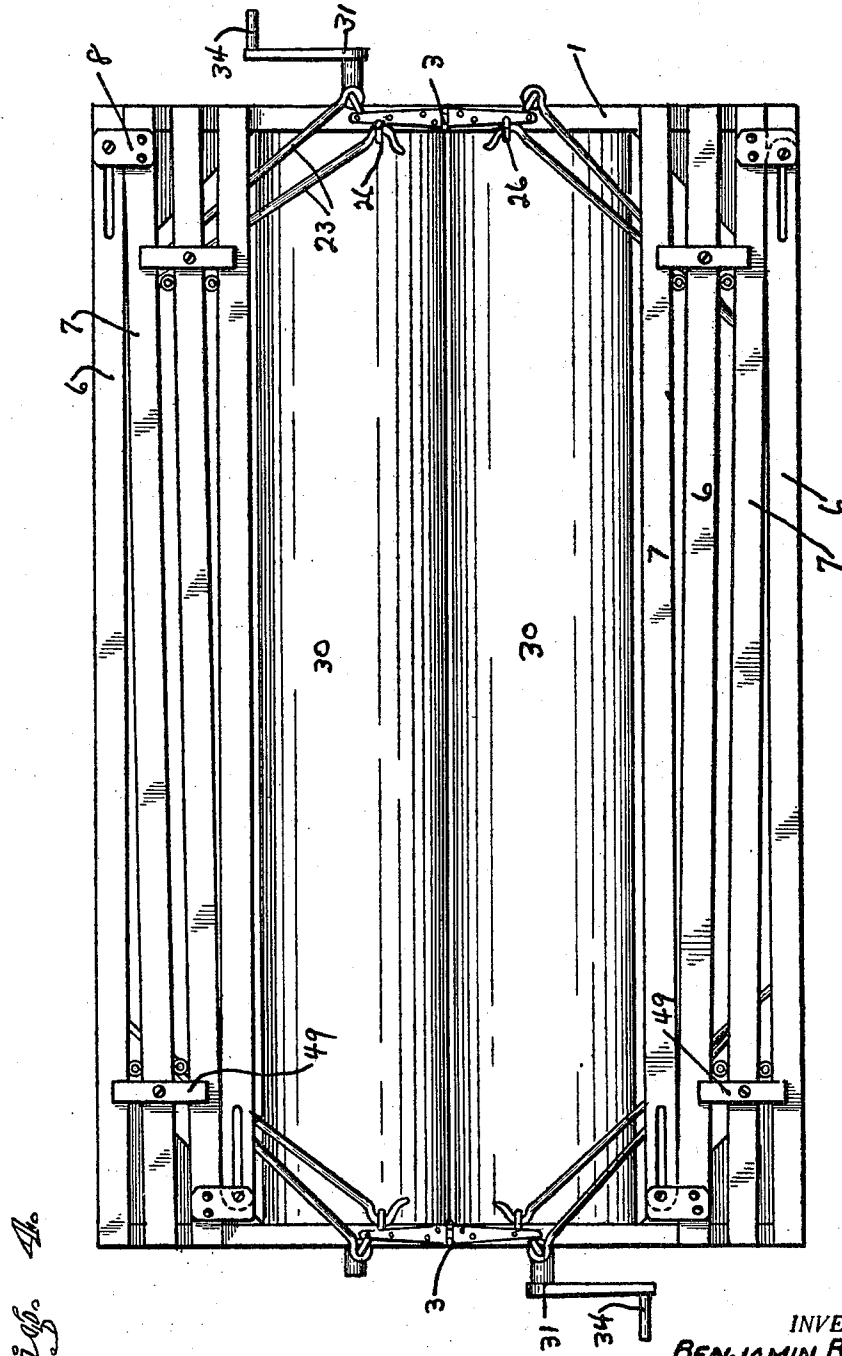


Fig. 4

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Fig. 5.

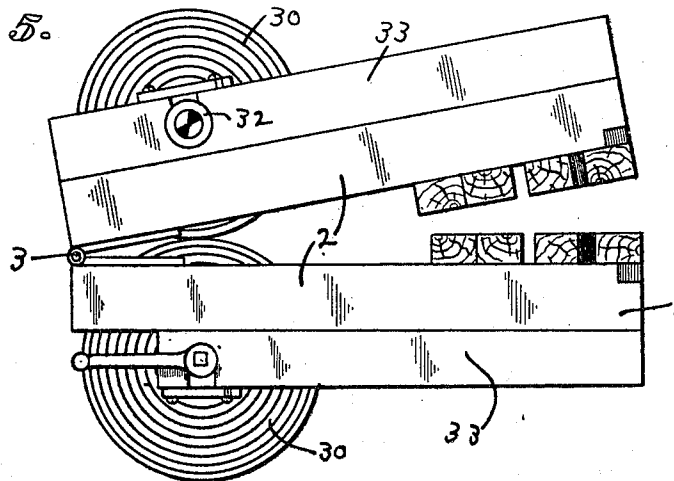


Fig. 6.

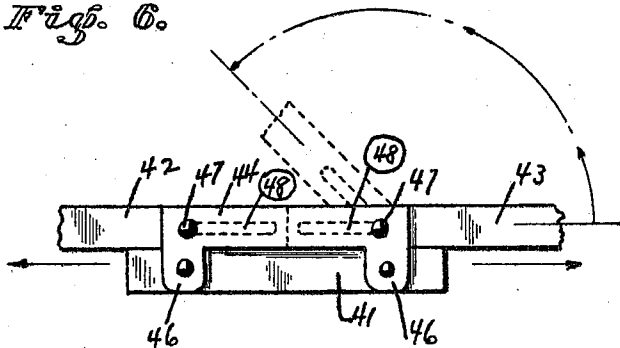


Fig. 8.

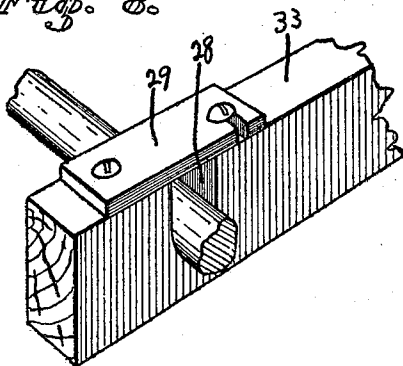
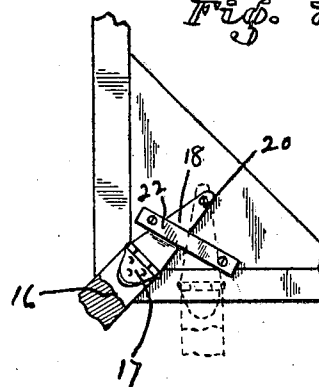


Fig. 7.



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UNITED STATES PATENT OFFICE.

BENJAMIN B. DUDLEY, OF VISALIA, CALIFORNIA.

FOLDING TENT.

Application filed August 24, 1921. Serial No. 495,014.

To all whom it may concern:

Be it known that I, BENJAMIN B. DUDLEY, a citizen of the United States, and resident of Visalia, county of Tulare, and State of California, have invented a new and useful Folding Tent, of which the following is a specification.

The present invention relates to improvements in folding tents and its object is to provide a tent of substantial proportions that can be conveniently folded into a small bundle adapted to take up little space in a camping outfit. A particular advantage of my tent is that it provides sufficient head room so that a person or a number of persons can conveniently stand up in the tent and have the comfort of a room in a house.

The preferred embodiment of my invention is illustrated in the accompanying drawing, in which Fig. 1 is a perspective view of the tent, a portion of the canvas covering being removed so as to show the inside, Fig. 2 an enlarged detail view of a joint in the upright frame members, Fig. 3 an enlarged detail view of a joint between the upper end of the upright frame members and the superimposed roof frame, Fig. 4 a plan view of the tent after the same has been partly folded, Fig. 5 an end view of the folded tent, Fig. 6 an enlarged detail view of a modified form of a leg joint, Fig. 7 a modification of the joint shown in Fig. 3, Fig. 8 a perspective detail view showing the means by which certain rollers are removably supported in the roof frame, and Fig. 9 a cross-section through the top of the tent.

Referring to the drawings in detail, it will be seen that the roof frame 1 is the dominating member of the structure, to which all the other members are attached. It comprises a rectangular frame consisting of four frame members, 2, secured to each other in any suitable manner. The frame is longitudinally divided at its center line and hinged, as shown at 3, so that it can be doubled up as shown particularly well in Figure 5. The hinges are secured at the bottom side of the frame so that the frame will not fold when supported at the four corners, as by the four legs 4. The latter consist of upper portions 6 and lower portions 7 and are joined at 8. This joint is a particularly important part of my invention and is shown in detail in Fig. 2. It comprises two parallel lugs 9 extending laterally from the lower end of the upper portion and supporting a horizontal

pin 11 on which pivots the upper end of the lower portion by means of a slot 12, which allows the lower leg to lie flat against the upper leg and to be locked to the same so as to form an extension of the same, or, if brought into the proper position, to swing on the pivot and to double up on the upper leg. In this manner uprights are provided for the tent, which, when collapsed, do not take up more space longitudinally than the upper frame, but can be extended to twice this length.

The legs are hinged to the corners of the frame so as to extend downwardly, slanting outwardly in a radial direction. Since the intention is to collapse the legs so as to fit on the frame and parallel to its members, I provide a special hinge for the legs, which allows the same to extend radially from the frame when the tent is set up, but to fold into a position parallel to the longitudinal frame members when the tent is folded. These hinges are shown in detail in Figures 3 and 7, and comprise two variations so as to allow the legs to be laid flat against each other as shown in Fig. 4. The hinge 16 shown in Fig. 3 is an ordinary hinge, one member 17 of which is secured to the upper end of the uprights in the ordinary manner while the other member 18 is pivotally secured to a bracing member 19 filling out the corner formed by the two adjoining frame members. As will be seen from Figure 3, this pivot 21 is comparatively close to the edge of the frame, while in the joint shown in Fig. 7, the pivot 20 is further away from the edge. The object of this arrangement will be readily understood from Fig. 4, where it appears that the legs, when folded, are to lie on the side of each other which object can only be accomplished by pivoting the hinges in different planes. A strap 22, is placed over the hinge strap 18 in the arrangement shown in Fig. 7, to limit the pivotal motion of the strap. Hooks 23 extend downwardly from each frame member to engage corresponding eyes 24 on the legs and to brace the same. Special eyes 26 are provided on the frame members to hold the hooks when the tent is folded. Latches 27 comprising strips of wood pivotally secured on the legs near the eyes (24) serve to hold the hooks in engagement with the eyelets by bearing on the hooks when turned into a position at right angles to the leg.

The tent covering 30, which may be made

of any suitable material, as canvas or mosquito netting, if the tent is to be used as protection from mosquitoes only, consists of two parts, each covering one half of the tent and the two meeting at a longitudinal center line. Each half consists of a center piece, 28, cut to cover a side of the tent, and three flaps, two (29) of which cover the adjoining half of the ends and one 35 the adjoining half of the top. The whole covering is supported on two rolls 31 lying flat on the top frame and rotating in bearings 32 in cross-members 33 secured on the frame so as not to interfere with the proper working of the hinges for the top frame. These rolls are detachably secured in the frame, as shown in Fig. 8, which shows them embedded in a slot 28, adapted to be closed by latches 34, and can be rotated by means of handles 39, and have the extreme end of the canvas flaps covering the top secured to them so that the whole canvas can be rolled on the same. To facilitate the rolling operation, the two end flaps 29, are doubled on the central piece of canvas and secured in any suitable manner as by hooks and eyes. To change the shape resulting from this operation into a rectangular piece adapted to fit on the roller, triangular side flaps are again doubled on a central piece defined by the vertical planes of the end members of the frame, and secured in a suitable manner, so that now the whole canvas can be conveniently wound on the top rollers.

It will be noticed that the rollers are secured in bearings somewhat above the frame so that sufficient clearance is provided for the canvas. This arrangement also gives the top a slight pitch and allows it to shed rain to some extent. A vacant space necessarily left between the two rollers when the tent is set up is bridged by the flap 36 secured to one of the canvases and adapted to be buttoned to the other one, as shown in Figure 9. When set up, the end flaps may be joined by any suitable means, as by the buttons 37.

In Figure 6 is shown a modified form of joints for the legs. In this form a third member 41 is used as joining means for the two parts 42 and 43 of the legs. The member 41 supports two parallel metal plates 44 by means of the perforated lugs 46, and the two plates carry two parallel cross pins 47 in

spaced relation on which the ends of parts 42 and 43 are adapted to swing. The latter ends are provided with slots 48 instead of circular perforations so that the legs can swing on the pins only when the ends of the slots engage the pins and the legs may be locked against the third member by pushing them toward each other.

When the tent is folded it appears somewhat as shown in Fig. 5, except that the members will be tightened together by a suitable strap. To set it up, the upper part of the tent is turned back on the hinges 3, when the tent will present the appearance shown in Fig. 4. The latches 49 which consist of simple strips of wood pivotally secured to the lower legs and assist in holding the legs together in their collapsed position are turned, the legs raised on their hinges and the latter swung into the radial or diagonal position and secured in that position by means of the hooks 23. The whole tent is then turned upside down, the legs are extended and the canvas let down over the side members of the top frame. The canvas is then spread to reach the legs and spread again to cover the ends of the tent, and the top flap is secured over the uncovered space left between the rollers, which finishes the tent. The manner of folding the tent will be easily understood from the foregoing description.

I claim:

1. In a structure, a folding leg, comprising a transverse pivot associated with one leg member and a slot in the other member engaging the pivot for locking the members in either one of two parallel positions but allowing one member to swing from one parallel position into the other.

2. In a folding tent, a rectangular elongated top frame centrally divided and hinged so as to fold downwardly only, a leg for each corner extending in diagonal direction and a hinge for each leg allowing the same to swing into a plane parallel to the plane of the frame, said hinge being pivotally secured to the frame so as to allow the leg to be turned into parallel relation with a frame edge, and the pivots of each two hinges being spaced from a common edge so as to allow the two legs to lie alongside of each other.

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