

March 12, 1929.

C. B. LEFFERT

1,704,945

TENT DOOR ARRANGEMENT

Filed Dec. 10, 1926

2 Sheets-Sheet 1

Fig. 1.

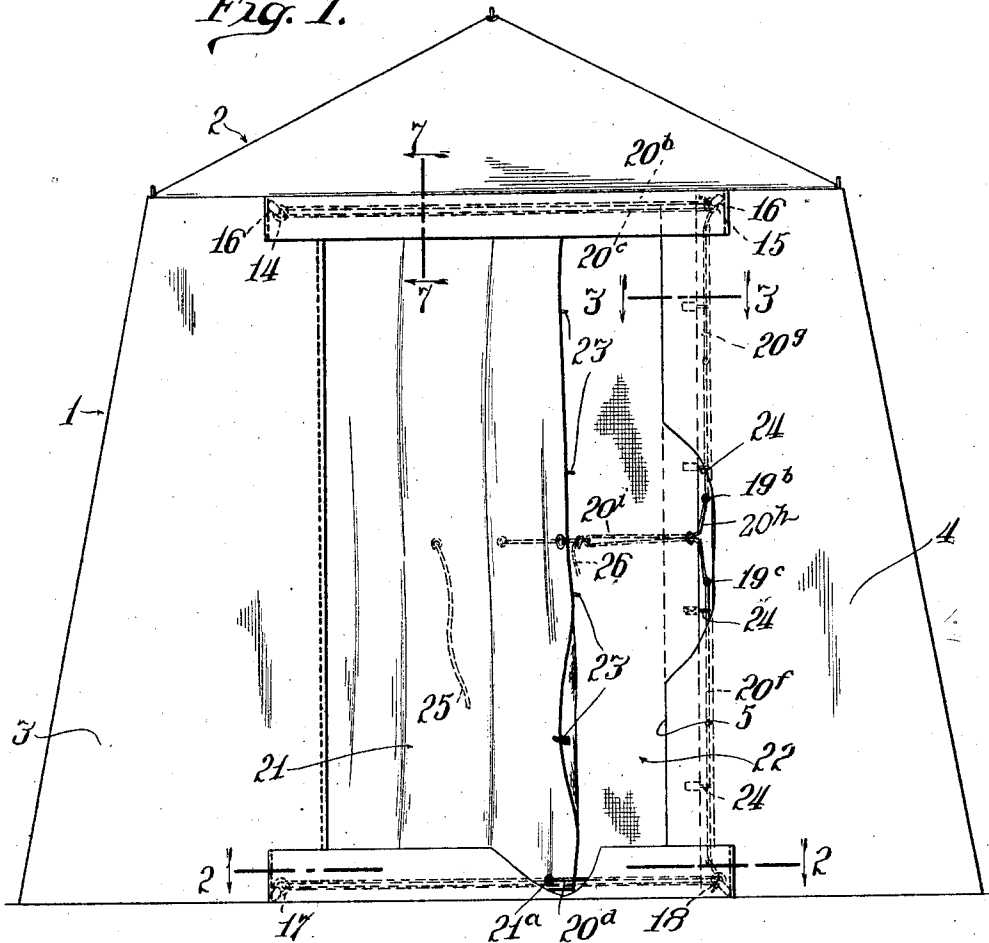


Fig. 2.

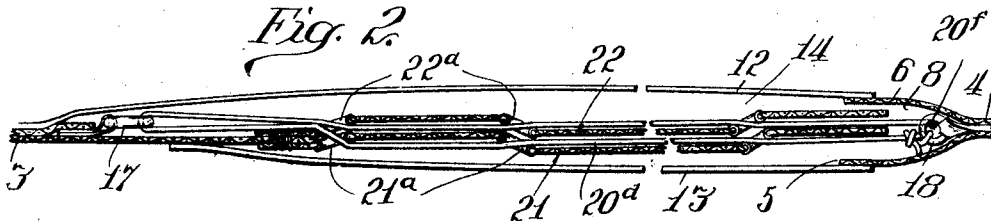
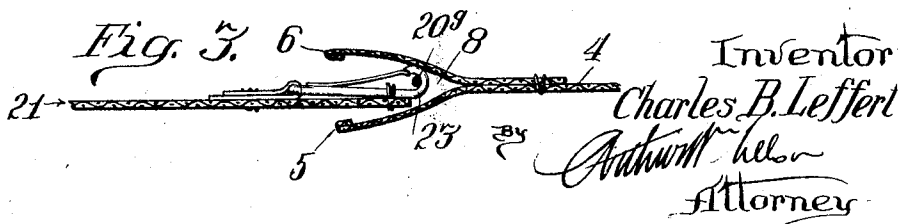


Fig. 5.

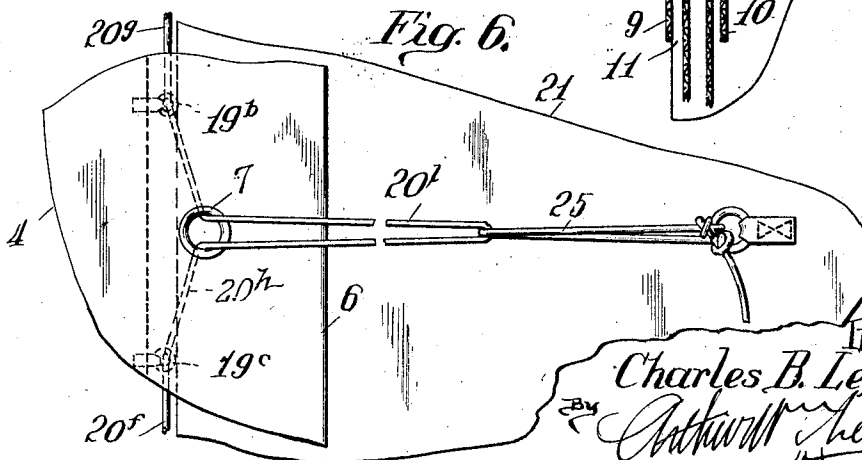
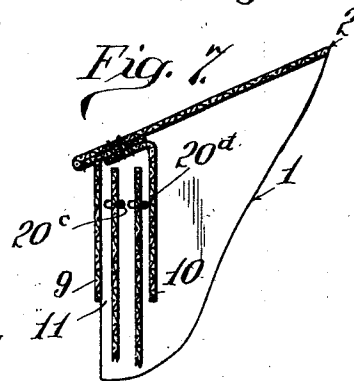
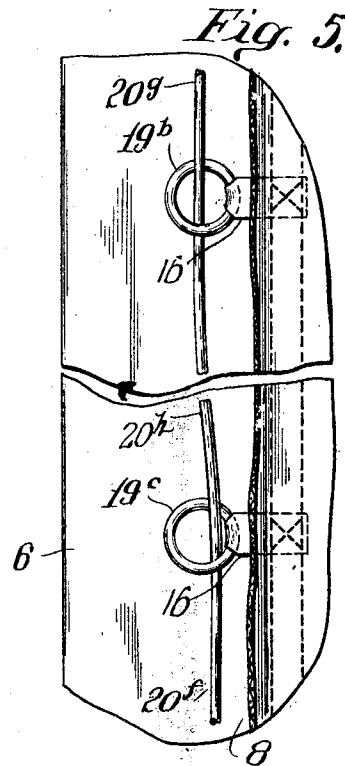
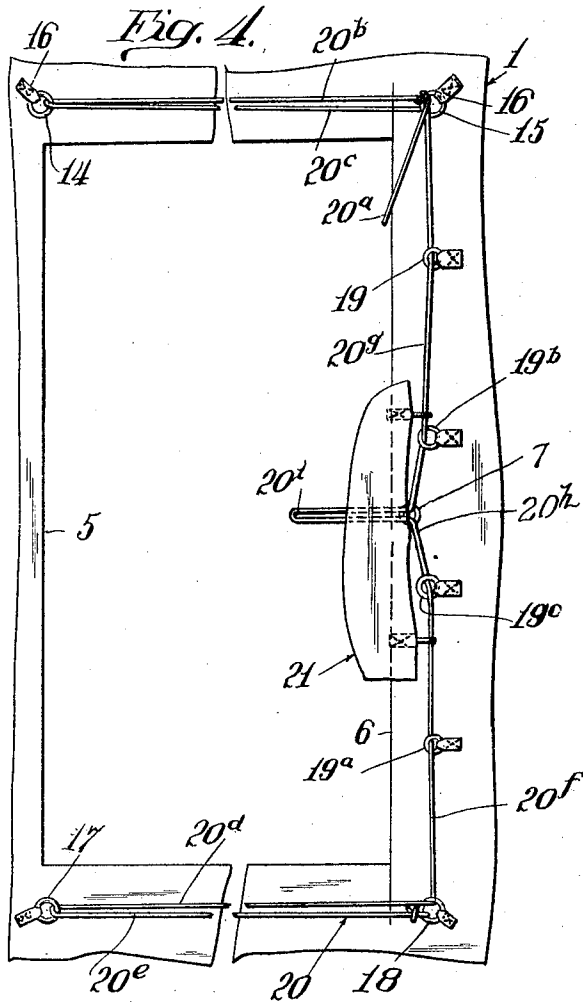


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2 Sheets-Sheet 2



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1,704,945

UNITED STATES PATENT OFFICE.

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TENT-DOOR ARRANGEMENT.

Application filed December 10, 1926. Serial No. 153,747.

This invention relates to improvements in door construction for tents and the like and it consists in the matters hereinafter described and more particularly pointed out in the appended claims.

In the tent door construction shown in my prior Patent #1,572,939 granted February 16, 1926 there were provided a "storm" door and an "insect proof" ventilating door, both of textile material and both mounted at the top and bottom upon suitable cords supported by the tent fabric for folding and unfolding to close and open the doorway. When closed, the free margins of said doors extended into a pocket along one side of the doorway and snap hooks carried by said door margins were hooked into suitable rings secured in said pocket.

The primary object of this invention is to improve the construction of the before mentioned patented tent, whereby the door supporting cords are formed by horizontal lengths of a single cord, a portion of which between said lengths may be looped and passed through a part of the tent wall adjacent the doorway and then pulled to draw said lengths taut and thereafter secured to the door to hold said lengths in this condition, thus preventing sagging of the doors which remain smooth and even and tightly close said door opening.

A further object of the invention is to provide such a door arrangement wherein after the cord has been pulled taut and has been secured to the other door in this condition, provides a vertical portion in a pocket at one side of the doorway to which snap hooks on the free margins of both doors may be engaged to securely hold said margins in said doorway pocket.

These objects of the invention as well as others, together with the many advantages thereof will more fully appear as I proceed with my specification.

In the drawings:

Fig. 1 is a view in front elevation of an umbrella type of tent in one wall of which the preferred form of my improved door construction is embodied.

Fig. 2 is a horizontal detail sectional view on an enlarged scale as taken on line 2—2 of Fig. 1.

Fig. 3 is a horizontal detail sectional view also on an enlarged scale, through the doorway side pocket showing the manner of se-

curing the free margin of one of the doors therein, the plane of the section being taken on the line 3—3 of Fig. 1.

Fig. 4 is a fragmentary view in elevation of the cord arrangement in the pockets about the doorway, portions of said pockets being purposely omitted to more clearly show said cord arrangement.

Fig. 5 is a fragmentary view in elevation on a further enlarged scale of a portion of Fig. 4 with parts thereof in a changed position.

Fig. 6 is a fragmentary view of the reverse side of parts at the middle right hand side of Fig. 4 with some of said parts in changed relation.

Fig. 7 is a vertical sectional detail view on an enlarged scale as taken on the line 7—7 of Fig. 1.

Referring now in detail to that embodiment of the invention illustrated in the accompanying drawings; 1 indicates as a whole the front wall of a tent of the umbrella type and 2 indicates a top or roof portion associated therewith. As the supporting pole arrangement of the tent forms no particular part of the present invention it is not thought necessary to illustrate or describe the same herein. The front wall of the tent comprises two front wall sections 3 and 4 respectively, the inner margins of which are parallel but spaced apart to provide a rectangular doorway or opening 5 at the middle of said front wall. Associated with the inner margin of the wall section 4 and extending from the top to the bottom on the inside thereof is a strip of flexible material stitched to said margin along a line spaced from the edge thereof to form a flap 6, which has an eye or grommet 7 at about its middle. Said flap together with said wall margin defines a jamb pocket 8 along one side of said door opening as best shown in Fig. 3.

At the top of the door opening on the outside of said front wall is a transversely extending outer head strip 9 which overlaps at its ends upon and is secured to the top end portions of said front wall sections and is secured along its top edge to the underside of the top wall 2. On the inside of said front wall, to the rear of the head strip 9 is a second and inner head strip 10 which is suitably secured to the front wall sections and to the top wall 2 to coact with the outer head strip to form a downwardly opening head pocket

11 at the top of the doorway 5. At the bottom of the doorway or opening is provided inner and outer threshold strips 12 and 13 respectively suitably secured to the front wall sections so as to form an upwardly opening threshold pocket 14 at the bottom of the doorway 5. In the ends of the head pocket are provided metallic eyes or rings 14 and 15 respectively secured in place by means of suitable attaching tabs 16 and in the ends of the threshold pockets are similar eyes or rings 17 and 18 respectively, secured in place in a similar manner. In the jamb pocket 8 is provided top and bottom rings 19—19^a and two intermediate rings 19^b and 19^c respectively positioned at about the middle of said jamb pocket and all secured in place by suitable tabs 16. A flexible member 20 in the form of a cable or cord is fixed at one end to the eye 18 in the threshold pocket 14 and is passed through the other eye 17 therein, and then back through the first named eye. After passing through said eye 18 it leads upwardly to pass through the eyes 19^a, 19^c and 19^b in the order mentioned. From said last mentioned eye, the cord passes through the ring 15 in the head pocket, over toward and through the other eye 17 therein and back to the first named ring 15 to which it is attached with an excess or free end 20^a hanging downwardly in the pocket as shown. By pulling on said end before it is tied to said ring, the cord is drawn to the desired tautness and is maintained in this condition after being tied to said ring. By this arrangement the single cord provides two horizontal lengths or portions 20^b and 20^c respectively, in the head pocket, two horizontal lengths or portions 20^d and 20^e in the threshold pocket, single top and bottom lengths 20^f and 20^g and an intermediate vertical length or portion 20^h in the jamb pocket, the purpose of which length will appear later.

21 indicates the "storm" door of the tent and 22 indicates the "insect proof" door of the tent, the former being made of tent fabric and the latter being made of an open mesh fabric such as bobinet or the like. Said doors are each attached along one margin to the vertical margin of the front wall section 3 of the tent and is of such an area or size as to extend at their top and bottom ends into the head and threshold pockets and to extend at its free margin into the jamb pocket and to be secured therein when so desired. In the bottom end of each door within the threshold pocket is provided sets of spaced grommeted openings 21^a and 22^a respectively and one length 20^d of the cord 20 is laced through the set of openings in the bottom of one door and the associated cord length 20^e is laced through the set of openings in the bottom of the other door. The top ends of the doors in the head end pocket are provided with similar sets of openings and the cord length 20^b

is laced through one set while the other cord length is laced through the other set. Thus the doors are supported at their ends within the head end and threshold pockets and may be folded back (individually or collectively) toward the tent wall section to which they are attached to fully expose the door opening or they may be extended or unfolded so as to close said door openings when their free lateral margins are positioned within the jamb pocket. On the rear or inner side of the free margin of the "storm" door is secured a plurality of snap hooks 23 and similar snap hooks 24 are secured to the rear or inner side of the "insect proof" door and a tape or tying member 25 is fixed at one end to the rear side of the "storm" door at about its middle and normally hangs downwardly therefrom while a second tape or tying member 26 is attached at one end to the rear side of the "insect proof" door 22. To close either door, its free margin is drawn over toward and inserted in the jamb pocket when the cord portions 20^b is pulled upon to form a loop 20ⁱ which is passed through the grommet 7 in the flap and is pulled upon thus taking all the slack out of all the cord lengths and making them taut. The tape 25 or 26 associated with the particular door being manipulated is then inserted through said loop and tied thereto as shown in Fig. 1. Thereafter the snap hooks on the door being manipulated, are snapped over those lengths or portions of the cord within the jamb pocket and the door is thus securely held thereby. Should a slack develop in the cord by continued use, this slack may be removed by untying the cord end 20^a from the ring 15, drawing on said cord to take up this slack and then retying it to said ring. By this arrangement when either the storm door or insect proof door is manipulated the free margin thereof is securely held in the jamb pockets and the possibility of the doors sagging at their top ends is eliminated.

While in describing my invention I have referred to certain details of construction as well as form and arrangement of the various parts thereof, I do not wish to be limited thereto except as may be pointed out in the appended claims.

I claim as my invention:

1. A tent wall having a door opening therein, a door of flexible material secured to said wall along one side of said opening, flexible means at the top and bottom of said opening and with which the door is operatively connected for a folding movement toward said side of the door opening, and means for simultaneously drawing taut said flexible means at the top and bottom of said door opening.

2. A tent wall having a door opening therein, a door of flexible material secured to said wall along one side of said opening, flexible means at the top and bottom of said opening

and with which the door is operatively connected for a folding movement toward said side of the door opening, and means located at the other side of said door opening and connected to said flexible means at the top and bottom of said door opening for drawing the same taut.

3. A tent wall having a door opening therein, a door of flexible material secured to said wall along one side of said opening, flexible means at the top and bottom of said opening and with which the door is operatively connected for a folding movement toward said side of the door opening, means located at the other side of the door opening and connected to said flexible means at the top and bottom of said door opening for drawing the same taut and devices on the free margin of said door for detachable engagement with said means located at the other side of the door opening.

4. A tent wall having a door opening therein, a door of flexible material secure to said wall along one side of said opening, flexible means at the top and bottom of said opening and with which the door is operatively connected for a folding movement toward said side of the door opening, means located at the other side of the door opening and connected to said flexible means at the top and bottom of said door opening for drawing the same taut and a device on said door between its margins adapted to be connected to said means at the side of the door opening for holding the same to maintain the said flexible members taut.

5. A tent wall having a door opening therein, a door of flexible material secured to said wall along one side of said opening, flexible means at the top and bottom of said opening and with which the door is operatively connected for a folding movement toward said side of the door opening, means located at the other side of the door opening and connected to said flexible means at the top and bottom of said door opening for drawing the same taut, devices in the free margins of the door for a hooked removable engagement with said means at the side of the door opening, and means on said door adapted to be connected to said means at the side of the door opening for holding the same to maintain said flexible members taut.

6. A tent wall having a door opening therein, a door of flexible material secured to said wall along one side of said opening, a cord disposed with portions at the other side of said door opening and at the top and bottom of the same, said door being operatively engaged with said cord portions at the top and bottom of said door opening, means on said tent wall adjacent said other side of said door opening and at the top and bottom of the same, for supporting said cord portions, and means on said door for engaging a part of

said portion of cord at said other side of the door opening.

7. A tent wall having a door opening therein, a door of flexible material secured to said wall along one side of said opening, a cord disposed with portions at the other side of said door opening and at the top and bottom of the same, said door being operatively engaged with said cord portions at the top and bottom of said door opening, means on said tent wall adjacent said door opening at the top and bottom of the same, for supporting said cord portions, and means on said door for engaging a looped part of said cord portion at said side of the door opening after it has been drawn taut to form said loop.

8. A tent wall having a door opening therein, a plurality of doors of flexible material fixed to said wall along one side of said door opening, a cord disposed with a plurality of lengths at the top and bottom of said side opening and connected to other lengths along the other side of said opening, said doors being operatively engaged on said plurality of lengths at the top and bottom of said openings, said cord length at said side of the door opening being adapted to be pulled to draw all lengths of said cord taut and form a loop in said other length, and means on said door to which said loop may be tied.

9. A tent wall having a door opening therein, a plurality of doors of flexible material fixed to said wall along one side of said door opening, a cord disposed with a plurality of lengths at the top and bottom of said opening and connected to another length along the other side of said opening, said doors being operatively engaged on said plurality of lengths at the top and bottom of said openings, said last mentioned length being adapted to be pulled to draw all lengths of said cord taut and form a loop in said last mentioned length, means on said door to which said loop may be tied, and means on the free margins of both doors for detachable engagement with said cord portion at the side of the door opening.

10. A tent wall having a door opening therein, means providing pockets at one side and at the top and bottom ends of said opening, two tent doors of flexible material fixed to the other side of the door opening, a cord arranged in said pockets with two portions in each of said top and bottom pockets and with another portion in said side pocket, said last mentioned portion being connected at its ends to one of said portions in said top and bottom pockets, the top and bottom margins of both doors being disposed on said cord portions in said top and bottom pockets, said cord portion in the side pockets being adapted to be pulled to form a loop and draw all of said cord portions taut, means on both doors to either of which said loop may be attached

and hooks on the free margins of both doors for engagement with the cord portion in the side pocket.

11. A tent wall having a door opening
5 therein, means on said wall providing pockets at the top and bottom ends and at one side of said openings, a ring at each end of said top and bottom pockets, and devices in said
10 side pockets, and a cord having its mid portion passing through the devices in said side

pockets, with its end portions each passed through a ring at corresponding ends of the top and bottom pockets and through the other rings at the other ends of said pockets and back to said first mentioned rings to
15 which they are attached.

In testimony whereof, I have hereunto set my hand, this 7th day of December, 1926.

CHARLES B. LEFFERT.