

Feb. 6, 1951

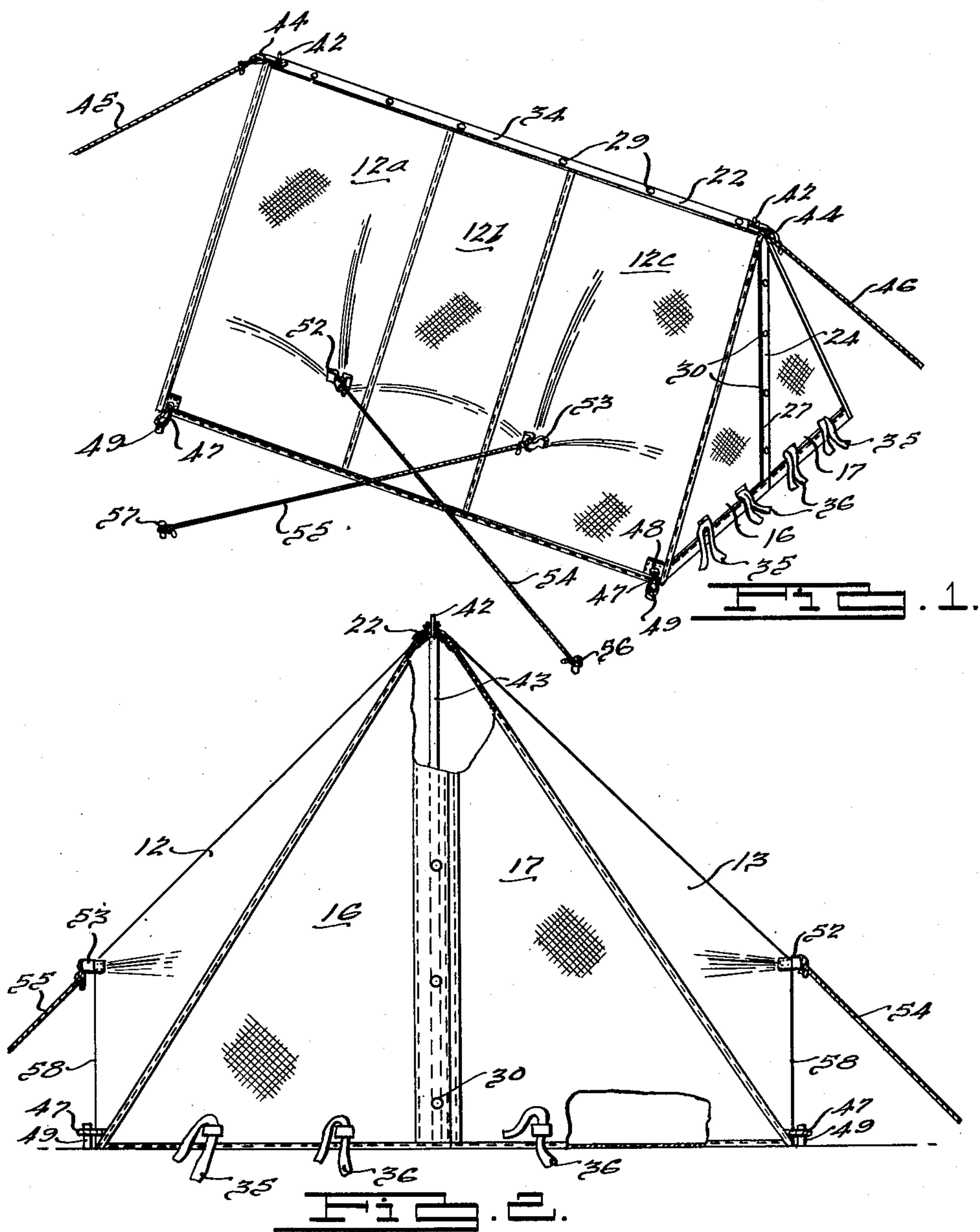
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2,540,529

TENT

Filed Oct. 27, 1944

3 Sheets-Sheet 1



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3 Sheets-Sheet 2

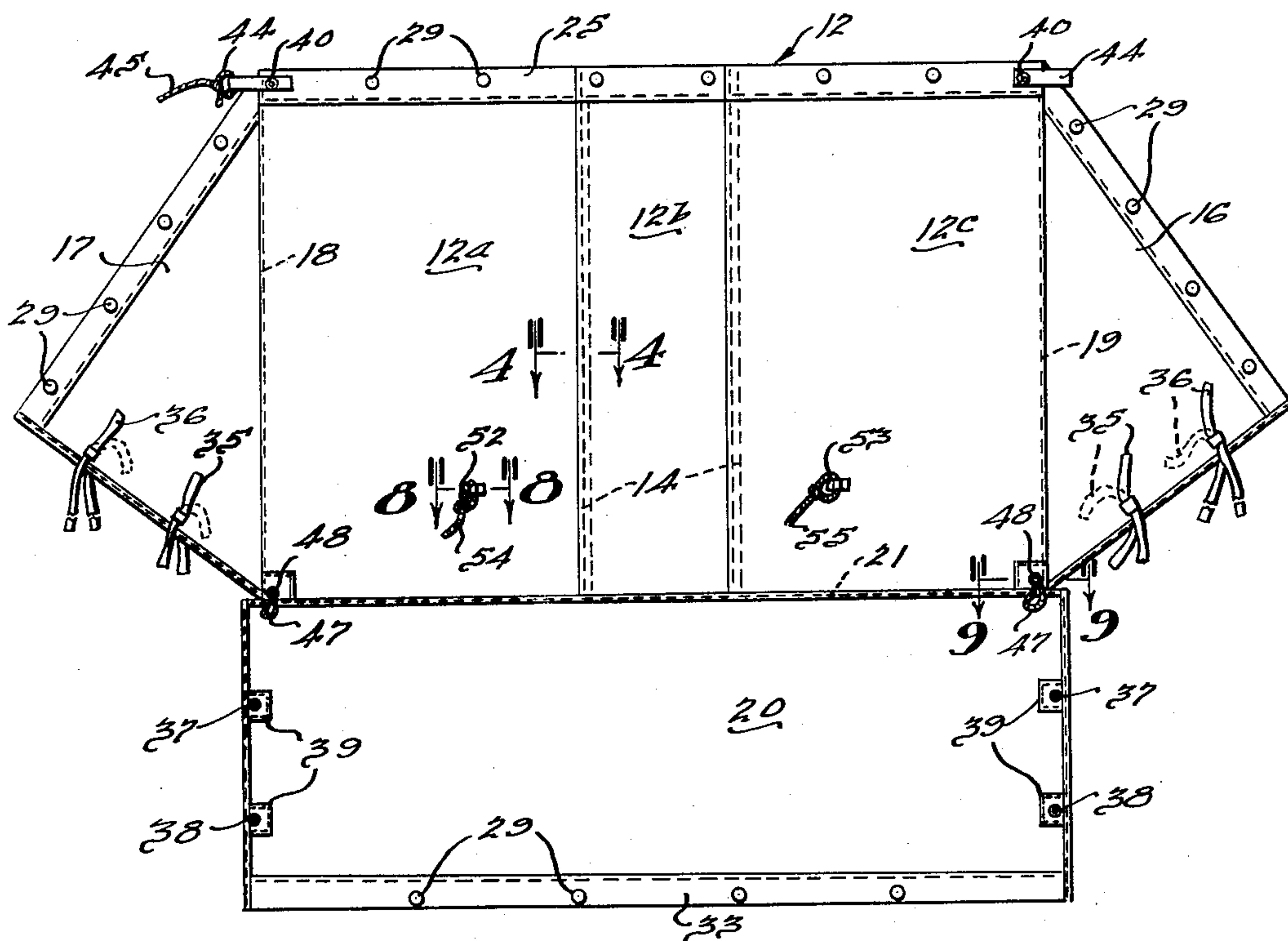


FIG. 3.

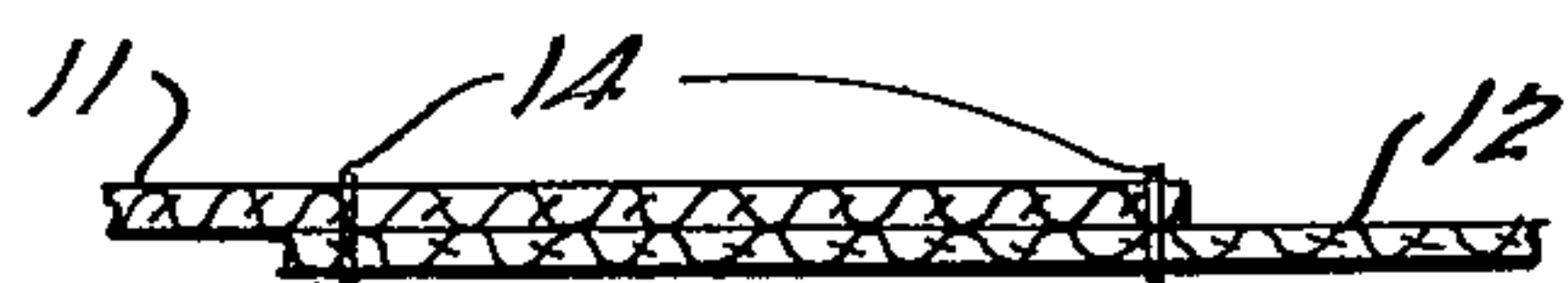


FIG. 4.

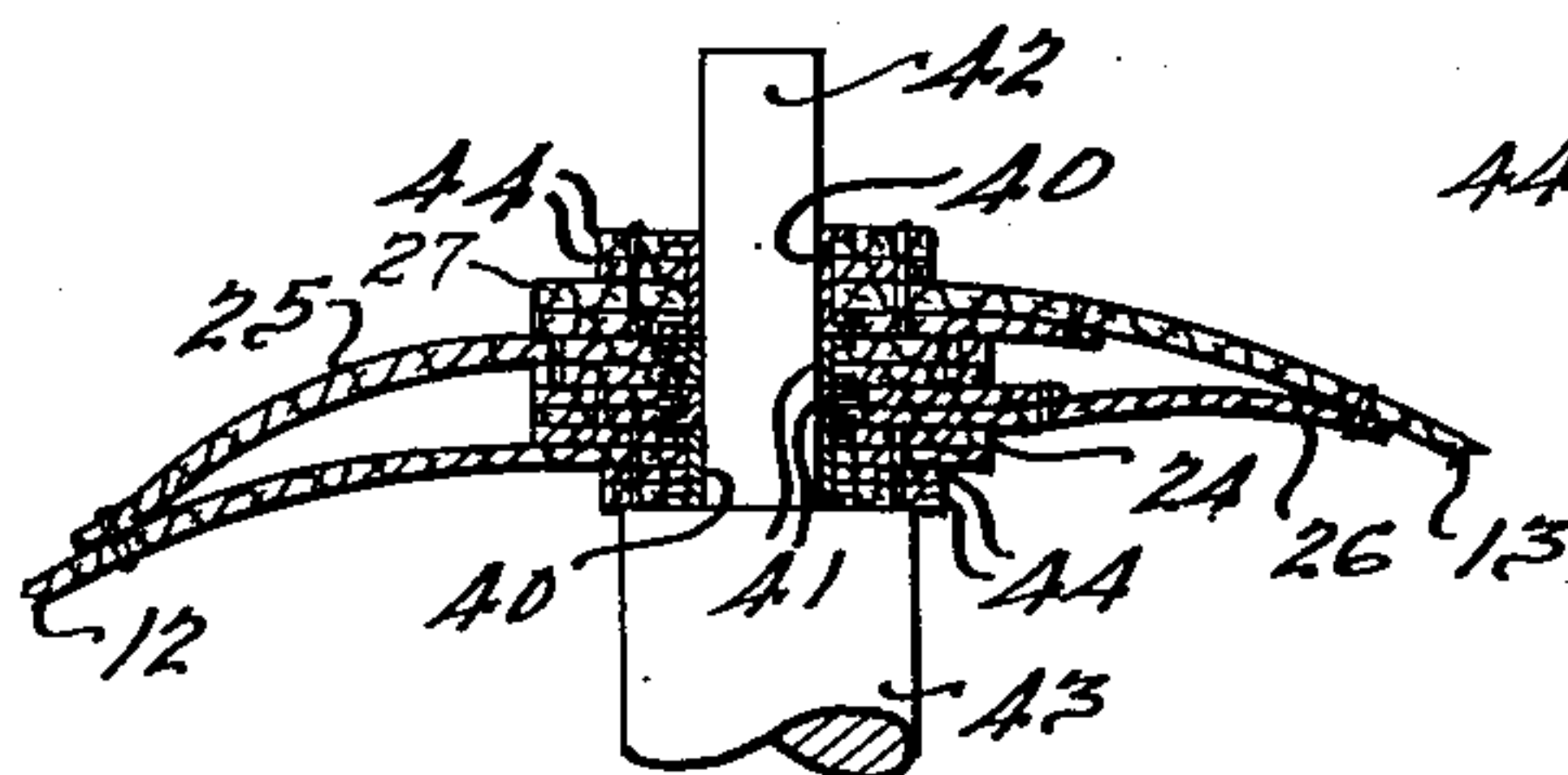


FIG. 5.

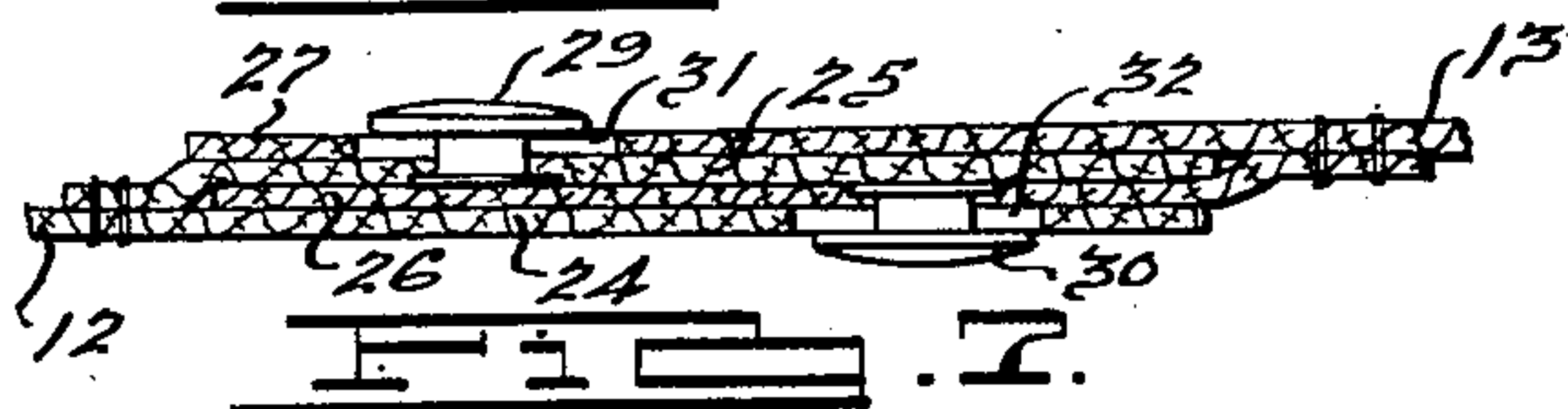


FIG. 6.

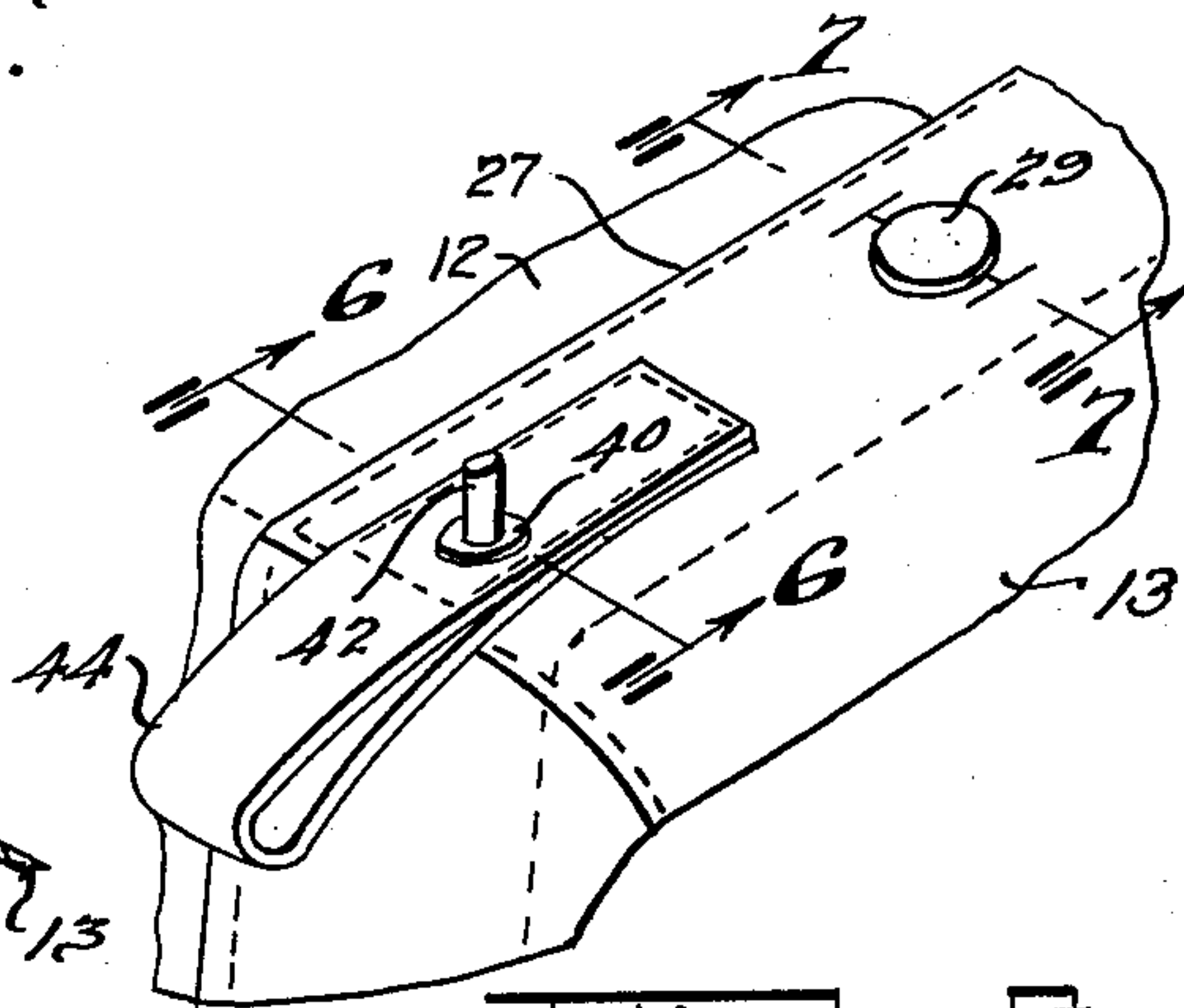


FIG. 7.

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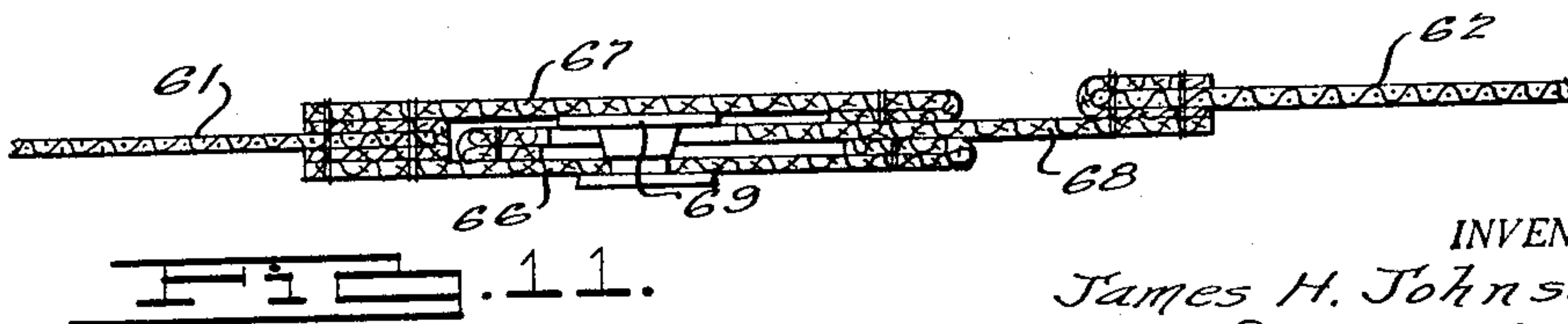
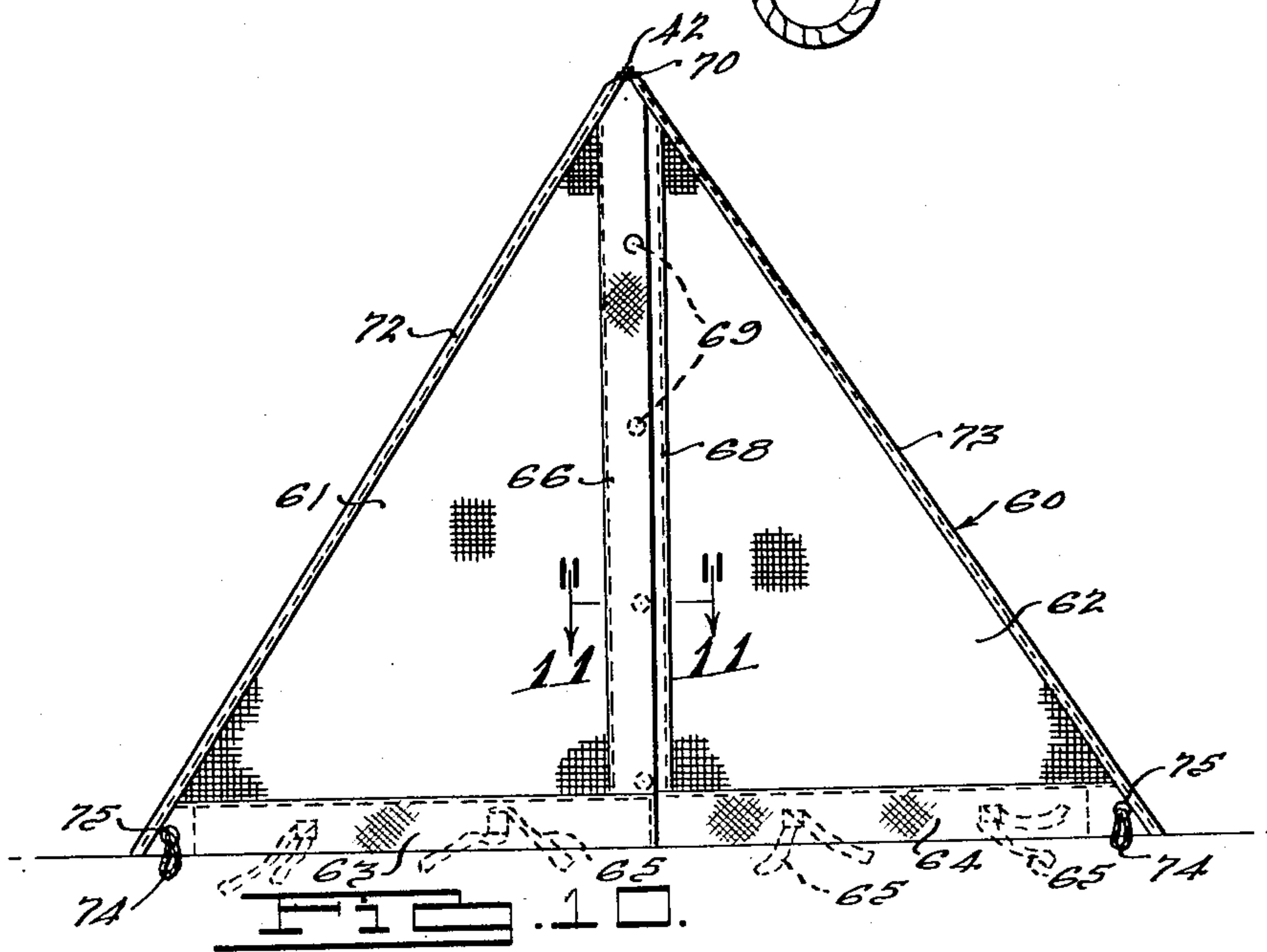
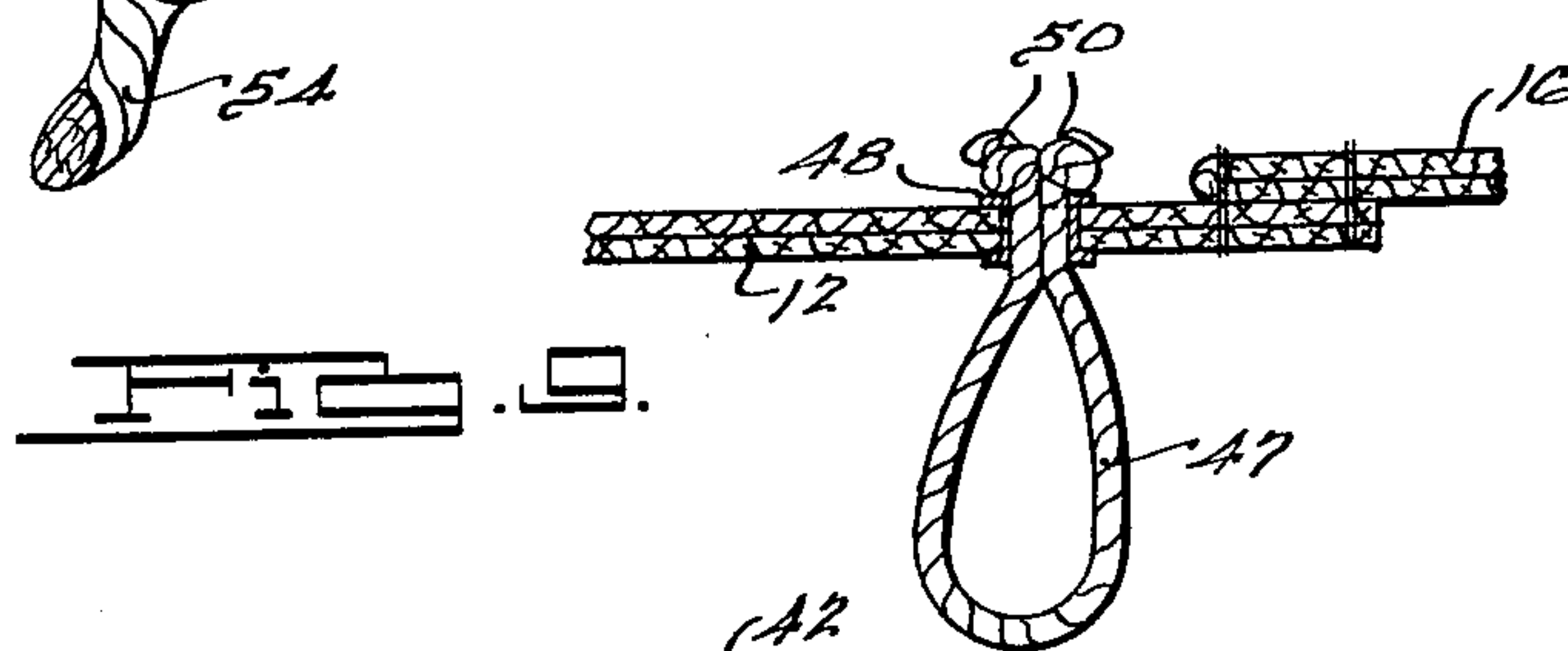
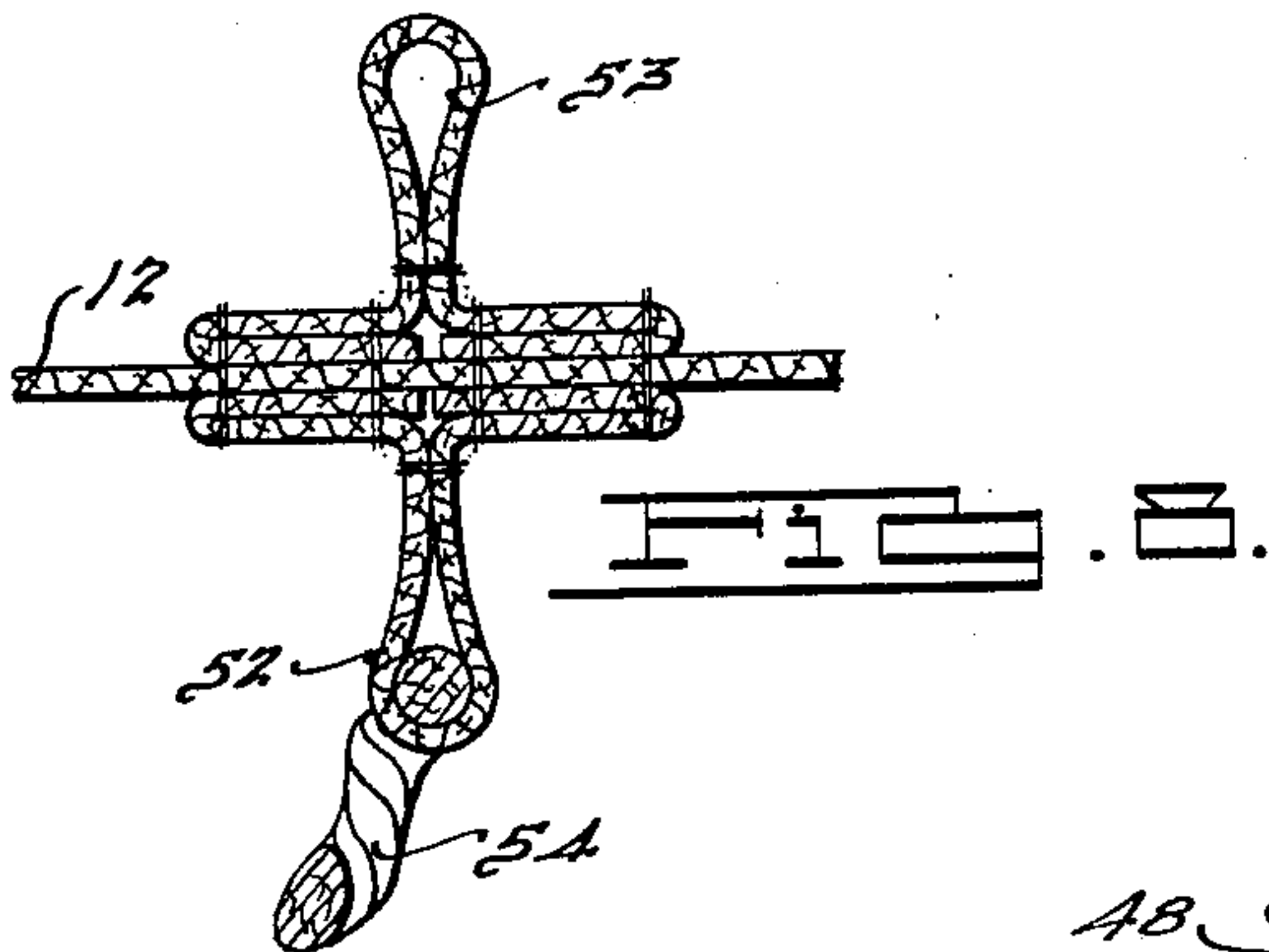
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TENT

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3 Sheets-Sheet 3



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## UNITED STATES PATENT OFFICE

2,540,529

## TENT

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7 Claims. (Cl. 135—1)

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This invention relates to shelter tents and more particularly to a shelter tent formed of two identical halves each of which is designed to be carried in packed condition by one person.

The tent which is the subject of the present invention is of the general type of shelter tents commonly used as military equipment and which is designed to house two occupants, each of whom carries one-half of the tent and accessories while en route.

An object of the invention is to improve upon prior art devices by providing a shelter tent which has a higher degree of imperviousness to the elements, and which is of greater simplicity and compactness, than tents previously used.

A further object of the invention is to provide a shelter tent wherein each half is reversible and is a replica of the other half, so that when a large number of such shelter halves are distributed among a large number of users, as is the practice in the military services, the half carried by any user may be combined with the half carried by any other user to form a completed tent.

A further object is to provide a tent having its ends open for ventilation while retaining a high degree of imperviousness to the entry of insects.

A further object of the invention is to provide a tent of simple and economical construction, light in weight, and of maximum comfort and security to its occupants.

A further object of the invention is to provide a tent having maximum sleeping space for its occupants, in relation to the weight and roof area of the tent.

Further objects and advantages of the invention will be apparent from the following description, taken in connection with the appended drawings, in which:

Fig. 1 is a view in perspective of a shelter tent embodying the invention, showing the tent in pitched position;

Fig. 2 is an end elevation of the same;

Fig. 3 is a plan view of one half of the tent, laid flat;

Fig. 4 is a fragmentary sectional view taken on the line 4—4 of Fig. 3;

Fig. 5 is a fragmentary view in perspective of one end of the ridge of the tent;

Fig. 6 is a sectional view taken on the line 6—6 of Fig. 5;

Fig. 7 is a fragmentary sectional view taken on the line 7—7 of Fig. 5;

Fig. 8 is a fragmentary sectional view taken on the line 8—8 of Fig. 3;

Fig. 9 is a fragmentary sectional view taken on the line 9—9 of Fig. 3;

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Fig. 10 is a view in elevation of the tent provided with a screened end; and

Fig. 11 is a fragmentary sectional view taken on the line 11—11 of Fig. 10.

The tent shown in the drawings is a small "A" tent, of the general type used for many years in the armies of the United States and other nations. It is separable along a vertical plane into two identical shelter halves, each of which is designed to be carried in packed condition by one of the users of the tent.

As best shown in Figs. 2 and 3, the respective halves of the tent comprise slant roof elements 12, 13 each of which is made up of three panels, the panels of element 12 being designated respectively 12a, 12b, 12c. The panels of each roof element are secured together by double seams 14.

To the ends of each of the roof elements 12 and 13 are secured end wall elements 16, 17, by means of seams 18, 19, each of the end wall elements being designed to form one half of the triangular end wall of the complete tent. To the lower edge of each of the roof elements 12, 13, is secured, by a seam 21, a floor element 20, in the form of a rectangular sheet of such size as to constitute one-half of the floor of the tent.

The roof element, end wall elements, and floor element may be formed of any suitable weather-proof material, such as cotton duck, and all seams in the tent are of such construction as to exclude air-borne elements such as water and sand.

As will be seen in Figs. 3 and 7, the upper edge 24 of roof element 12 is formed on its outer surface with a longitudinal fly 25 which terminates flush with the edge 24, thus providing a space between the said edge and the fly to receive a fly 26 attached to the inner surface of the upper edge 27 of the roof element 13. The adjoining edges of the roof elements therefore form a double overlap, as shown in Fig. 7, which is particularly effective in excluding rain or wind-blown sand, such as is frequently met with in certain types of terrain encountered in military operations. The efficacy of this type of seal is based upon the fact that any foreign matter, in order to pass through the seal, must reverse its direction twice in order to enter the tent.

The flies 25, 26 are provided with oppositely extending buttons 29, 30 designed to be received in buttonholes 31, 32 formed in the edges 27, 24, in order to separately secure the two roof elements together.

A similar arrangement of flies, buttons and buttonholes is provided at the meeting edges of the end wall elements 16, 17, and at the lower edges 33 of the floor elements 20, the arrange-



ment being designed in each case to separably secure an element to the corresponding element of the other half of the tent.

Adjacent the lower edges of the end wall elements 16, 17 are secured spaced tie straps 35, 36, the straps being secured in pairs to the inner and outer surfaces of the end wall elements, so that an inner strap is available for use even though in setting up the tent the tent half is reversed from the position shown in the drawings. The straps 35, 36, are designed to be passed through correspondingly positioned grommets 37, 38, secured in reinforced patches 39 at the ends of the floor element 20.

At each end of the upper edges 24 and 27 of roof elements 12 and 13, there are provided grommets 40, and similar aligned grommets 41 are provided in the flies 25 and 26. When the meeting edges of the roof elements are assembled as shown in Fig. 6, there are thus four grommets 40, 41, vertically aligned with each other, and through these grommets passes the reduced upper end 42 of a vertical tent pole 43. Straps 44 are also secured to the opposite ends of the edges 24 and 27 by means of the grommets 40, and are looped to receive guy ropes 45, 46, which extend from the loops to tent pegs (not shown) which are driven into the ground at a suitable distance forwardly and rearwardly of the tent. Loops 47, formed of rope or similar material, are secured in grommets 48 at the lower corners of roof elements 12 and 13, and are designed to receive tent pegs 49 which are driven into the ground to peg the edges of the tent down, in the usual manner. The ends 50 of the loops 47 are knotted, in the manner shown in Fig. 9, to prevent the loop from slipping through the grommets when in use, but the grommets are of such diameter relative to the size of the rope that the loop may be pulled upwardly (Fig. 9) to withdraw it from the grommet, and to permit it to be inserted in the reverse direction, when desired.

In the use of a tent of this type, it is desirable to enlarge as much as possible the sleeping space available to each occupant, particularly adjacent the mid-section of the tent, since it is at this section that the occupant is most likely to bring his body into contact with the roof section 12 or 13, and thus expose it to insect bites or to wetting if rain is falling on the tent. For this purpose, the panels 12a, 12c, and the corresponding panels of roof element 13, are provided on both the inner and outer surfaces thereof with loops 52, 53, permanently secured to the panels by stitching as indicated in Fig. 8. The loops 52, 53 receive guy ropes 54, 55 which extend diagonally forward and rearward respectively to pegs 56, 57. The proper degree of tension being applied to these guy ropes, the roof elements 12, 13 and particularly the middle panels thereof will be drawn outwardly to the position shown in Fig. 2, thus providing a nearly vertical portion 58 adjacent the mid-section of the lower portion of each of the roof elements, and correspondingly enlarging the space for the occupants. These diagonal guy ropes also supplement the action of pegs 49 in giving lateral stability to the tent.

In order to erect the tent, the two halves are brought together and the upper edges 24 and 27 with their flies 25 and 26 are secured together by means of the buttons 29 and 30. The ends 42 of poles 43 are then inserted through the grommets 40 and 41 in the manner indicated in Fig. 6. Poles 43 being manually supported in vertical

position, the guy ropes 46 are then staked in place with the requisite degree of tension, and the lower corners of the tent are secured by means of loops 47 and pegs 49, the floor elements 20 being folded inwardly so as to lie flat on the ground inside of the tent. The meeting edges of the end wall elements 16, 17, at one end of the tent are then buttoned together by means of buttons 29, 30, and the floor elements 20 are secured together in the same manner along their edges 33 on a center line extending longitudinally through the base of the tent. The diagonal guy ropes 54, 55, are then tightened and pegged to bring the roof elements into the position indicated in Fig. 2, whereupon the tent is ready for occupancy. If desired, the end wall elements 16, 17, at one end of the tent may be folded back over the adjacent panels of the roof elements and secured in such position by tying the straps 36 to the diagonal guy ropes 55, 56. If, however, it is desirable that the tent be made weatherproof and insect proof, the occupants may button the edges of the end wall elements from the inside of the tent, and secure the lower edges of elements 16 and 17 to the ends of the floor elements 20 by tying the straps 35, 36, through the grommets 37, 38. When so secured, the tent is proof against both insects and weather. The occupants will of course place their bedding upon the respective floor sections 20, which will protect the bedding against moisture from the ground.

It will be noted that when the tent is set up in the manner indicated in Figs. 1 and 2, the straps 35 and 36 which are secured to the outer surfaces of the end wall elements 16 and 17, the loops 52, 53 which are secured to the inner surfaces of the roof elements 12, 13, and the loops 44 which are secured to the roof element 12, are not in use. The reason for this is explained hereinafter.

When the tent is struck and packed for carrying, one occupant will take the portion shown in Fig. 3, including the roof, end wall, and floor elements, the attached guy ropes 54 and 55, the guy rope 45, and the two loops 47. He will also take one tent pole 43 and five pegs. Now let it be assumed that when he next comes to pitch his tent he is paired with a co-occupant having precisely the same equipment, arranged in precisely the same manner, as his. The other occupant cannot reverse his shelter half end-to-end, since that would bring the two rows of buttons 29, in flies 25, into juxtaposition with each other instead of with their corresponding buttonholes 31. It is therefore necessary to bring the two halves together in mirror-image relationship, with the edges of elements 12a, 12b, 12c and 16 of each half meeting respectively the corresponding edges of the elements of the other half. This brings the buttons and buttonholes into proper juxtaposition, but places the guy ropes 54, 55 and loops 47 of one half on the inner surface of the tent. This matter is corrected by untying the guy ropes from the inner pair of loops 52, 53, and tying them to the outer pair of loops; and by reversing the loops 47 of that half in the manner above indicated. Since tie straps 35, 36 are provided in pairs, one on each surface of the end wall elements, the occupants use whichever straps are on the inner surface when the tent is set up. Whichever roof element has its upper edge on the outer surface of the tent, with its fly beneath it, will be placed outermost (see edge 27 in Fig. 7) relative to the other roof element, at the meeting edges, and the straps 44 of that roof element



will be provided with two guy lines 45, 46, while the straps of the other roof element will have none.

If it is desirable to provide free ventilation for the tent while yet retaining protection against insects, tent ends such as that shown in Figs. 10 and 11 may be used, end wall elements 16, 17, being tied back to the diagonal guy ropes as above explained. Each tent end 60 is an inseparable unit, it being contemplated that each occupant of the tent will carry one such end, so that a tent end 60 may when desired be used at each end of the tent. The end 60 comprises two triangular panels 61, 62, which are preferably formed of non-metallic screen material such as ethyl cellulose or other suitable plastic material of known type, having about the same degree of rigidity as metallic screen material, and being inelastic in about the same degree, but being capable of being folded without injury. A fabric border 63, 64, extends across the bottom of the panels, and is provided on its inner surface with tie straps 65 for securing the lower edge of the tent ends to the floor element 20. The meeting edges of the panels 61 and 62 are provided with vertical fabric strips one of which, 66, is provided with a fly 67, while the other, 68, is designed to be inserted between the strip 66 and its fly 67. These strips may be secured together by means of buttons 69 secured to the strip 66, through juxtaposed buttonholes in the strip 68, in the same manner as above described in connection with the other elements of the tent. The upper ends of strips 66, 68, are permanently secured together and are provided with a grommet 70 designed to receive the end 42 of pole 43, the ends of the roof elements being lifted off the pole in order to permit the grommet to be brought into position. The slant edges of the panels 61, 62, are bound with taped edges 72, 73, these edges and the lower border 63, 64, being stitched to the panels with a puckering stitch, so as to leave an excess of material in the panels which will cause them to bulge outwardly rather than remain in the plane of the elements 63, 64, 72, 73. When the tops and bottoms of the slant edges of the panels are secured in position by the engagement of the grommets 70 with the tent poles and by tent pegs respectively, the slant edges of the panels will be pulled into snug contacting engagement with the inner face of the adjacent end wall element 16 or 17; the provision of the excess of material throughout the center of the panels obviating any tendency of the side edges being pulled away out of contact with said end panels.

Loops 74 are inserted through grommets 75 at the ends of the border 63, 64 in the same manner as described in connection with loops 47, and are designed to receive pegs to secure the tent ends in position and put the elements 63, 64, 72, 73 under such tension as will cause the bulging action of panels 61, 62 above described.

Although the invention has been described with particular reference to the illustrated embodiment thereof, it is not limited to the form shown and described, but may be embodied in other forms within the limitations of those skilled in this art. The invention is therefore not to be considered as limited except in accordance with the terms of the following claims.

#### I claim:

1. A shelter tent comprising a pair of slant roof elements adapted to be separably fastened together at their upper edges to form a gable roof,

a guy secured to a forward portion of one of said elements and extending diagonally rearwardly therefrom, and a second guy secured to a rear portion of the same element and extending diagonally forwardly therefrom, said guys serving to prevent lateral sway of the tent and to increase the cross sectional area of said tent along said intermediate portions of said elements.

2. The invention defined in claim 1, comprising in addition securing means for said guys on both surfaces of said portions, to facilitate securing the guys to either surface of said elements.

3. A tent of the "A" type comprising two slant roof elements, triangular end wall elements permanently secured to the roof elements and capable of being folded and secured thereover when the tent is pitched, and a triangular tent end comprising a screen panel completing the closure of the tent when the end wall elements are in such folded position.

4. A shelter tent comprising two slant roof elements, triangular end wall elements secured to the ends of the roof elements and meeting at a median line to close the end of the tent, the end wall elements being foldable and securable over the roof elements when the tent is pitched, and a triangular screen element to close the end of the tent when the end wall elements are so folded.

5. A shelter tent comprising two slant roof elements forming a gable roof, triangular end wall elements permanently secured to the ends of the roof elements and having their edges meeting on a vertical median line to close the end of the tent, separable fastening means on said edges, and a triangular screen element to close said end of the tent and having separable fastening means at said median line so constructed and arranged that when said means are unfastened the screen element may be parted for ingress to and egress from the tent.

6. A shelter tent comprising weatherproof fabric members forming slant roof elements meeting at their upper edges to form a ridge, triangular end wall elements secured to the ends of the roof elements and having meeting edges in a vertical line passing through one end of the ridge to close the end of the tent, a triangular screen element to close said end of the tent, and means for securing the upper portion of the screen element to said ridge and the lower portion thereof to the ground.

7. The invention defined in claim 6, wherein the screen element comprises an inelastic border and an elastic screen panel secured within the border and having excess area to cause the panel to bulge relative to the border when the latter is put under tension.

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