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2,454,464

TENT STRUCTURE

Filed Oct. 22, 1946

3 Sheets-Sheet 1

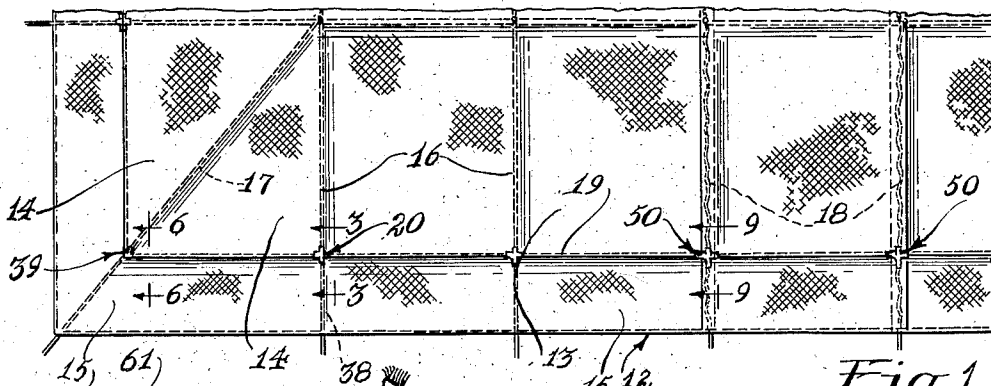


Fig. 1.

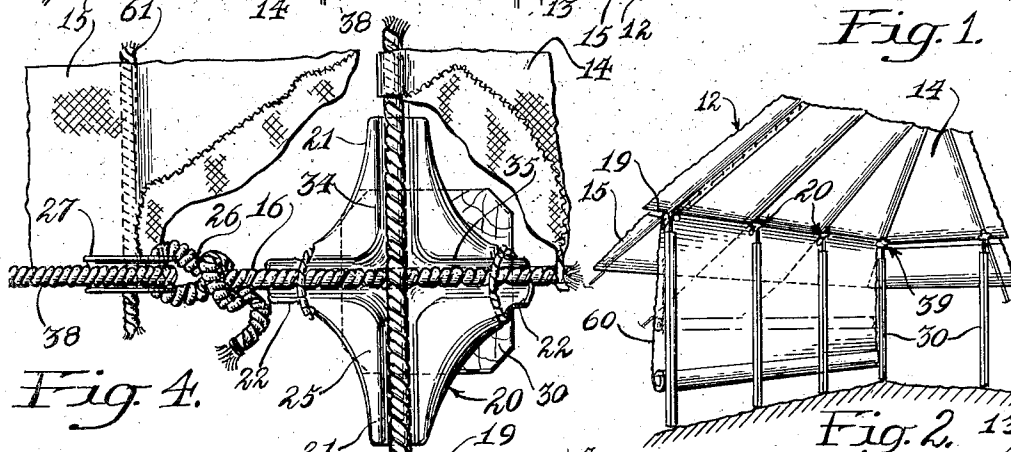


Fig. 2.

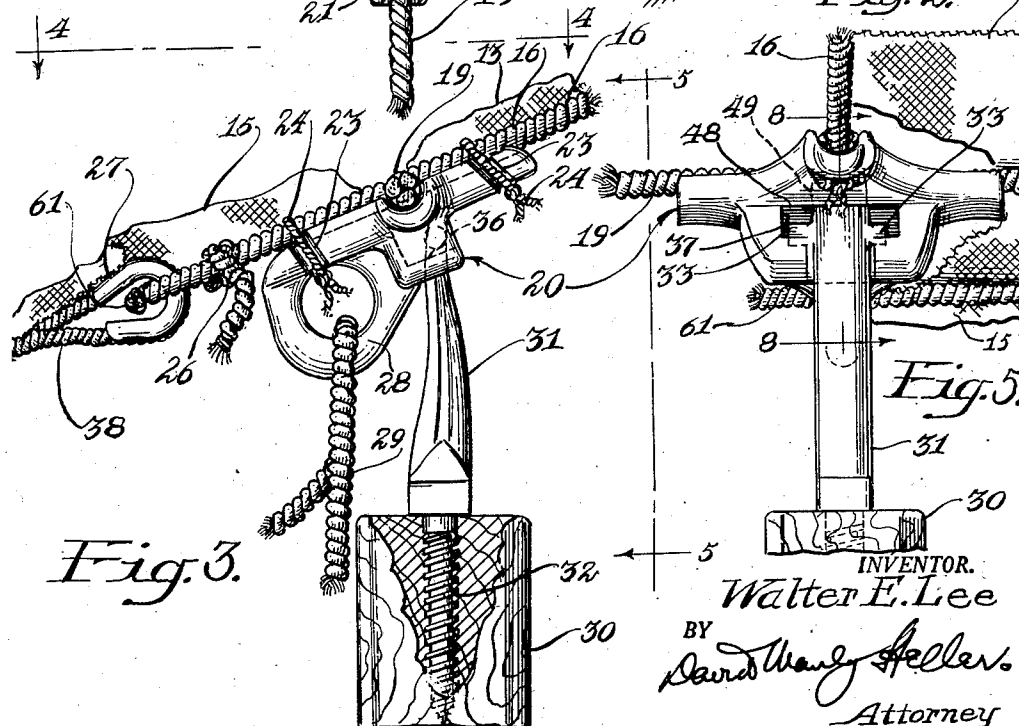


Fig. 3.

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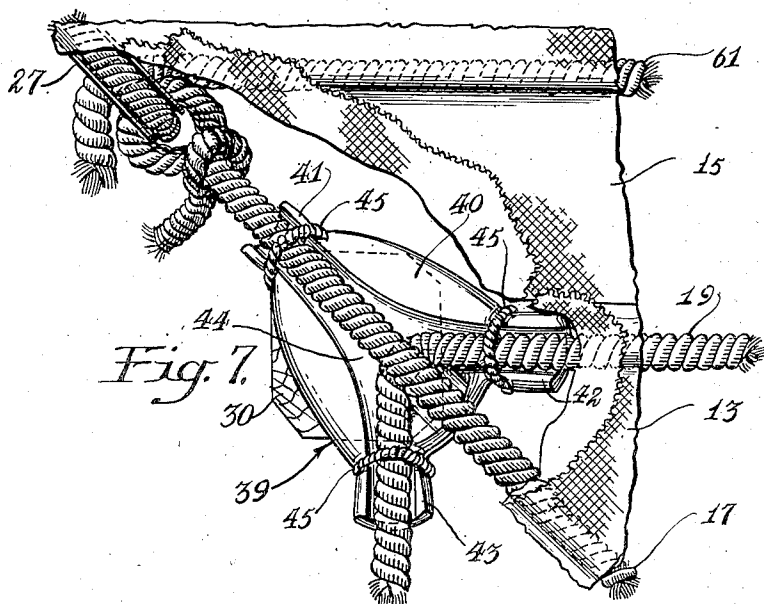
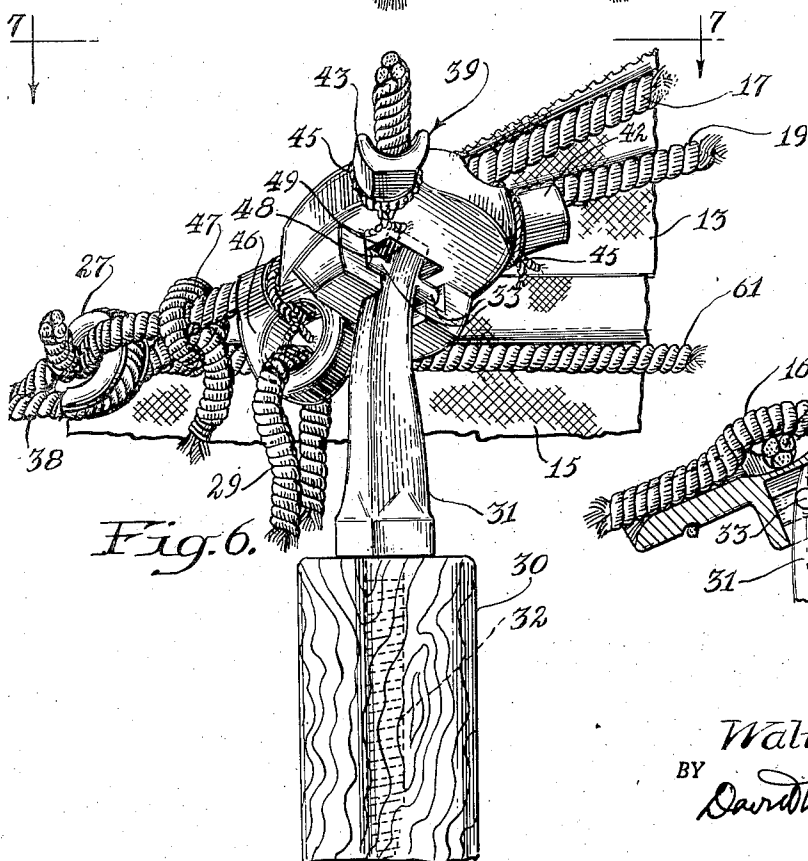
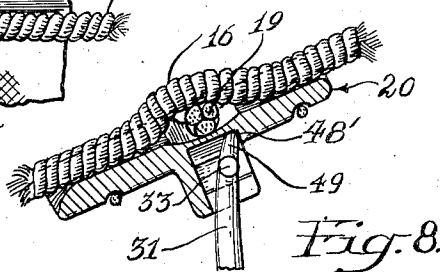
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TENT STRUCTURE

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3 Sheets-Sheet 2



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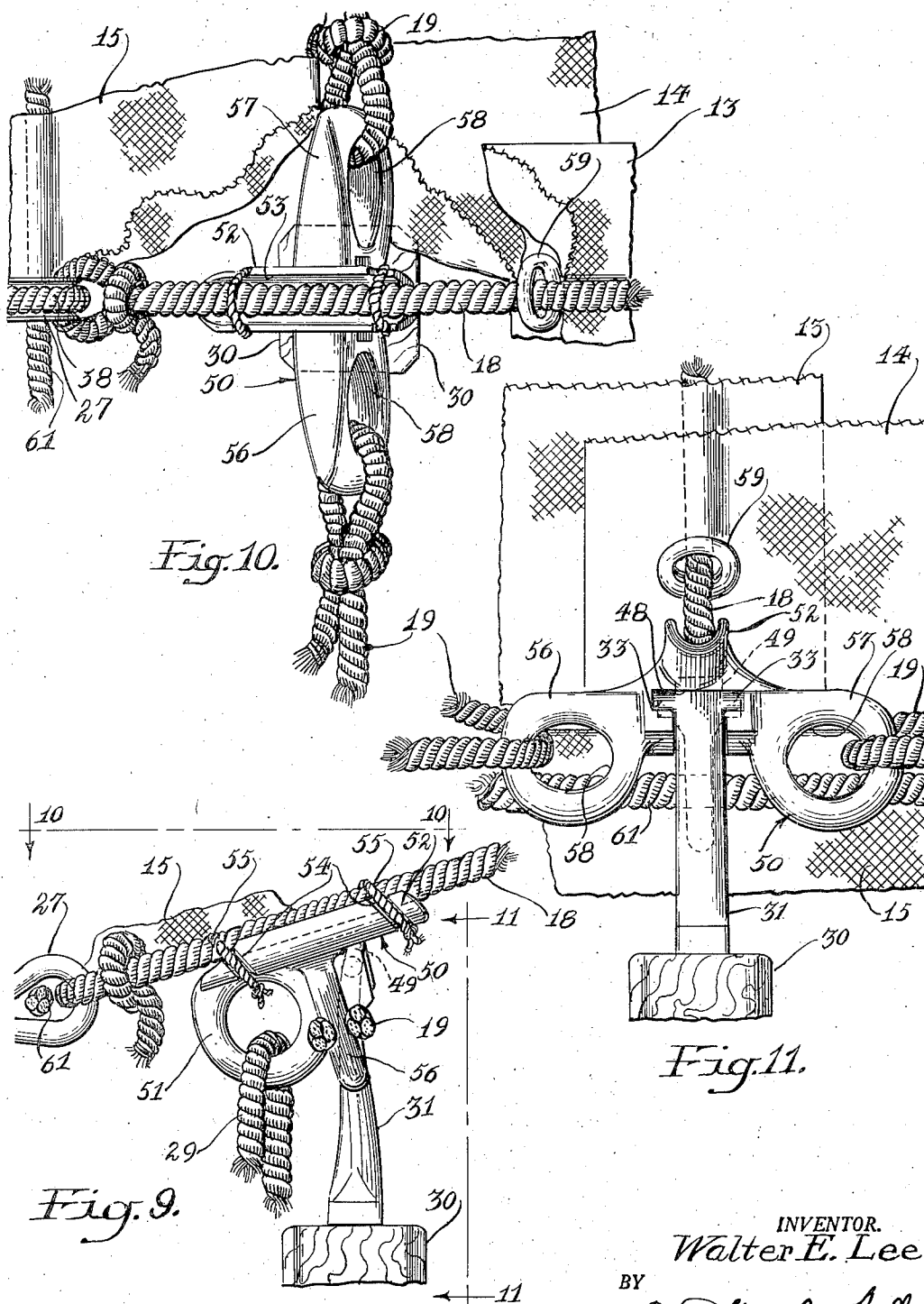
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3 Sheets-Sheet 3



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TENT STRUCTURE

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10 Claims. (Cl. 135—15)

1

My invention relates to tent structures, and aims for a more economical and simplified construction, by virtue of the use of a number of novel fittings, requiring less time to set up, or knock down a tent structure, hence effectuating a saving of time in the set-up and knock-down operation.

An important object of my invention is to provide novel fitting structure, which permits the various rope structures utilized in forming the skeletal reinforcement, and framework for tent bodies, sides, and roofs, so as to permit of a ready manipulation, and attachment of the said ropes when setting up the tent, and conversely when the said tent has to be knocked down, and compactly disposed for erection at a future date.

An important object of my invention is to provide simplified means for adding tent sections to a tent structure, thus making possible erection of tents of various sizes, of square, or rectangular construction.

A further object of my invention is to provide quickly, attachable, or removable means for securing the said fittings to the supporting posts.

A further object of my invention is to provide key and key-way means for securing the said fittings, the said structure being also provided with tongue and lip engaging means in order to maintain the said fittings in fixed, and rigid engagement after the rope-tying has been completed.

A further object of my invention is directed, primarily, at a corner of a tent structure, which by the process of duplication, will form a tent of a four-sided, polygonal configuration, the said corner structure providing means for adding sections thereto, means for supporting the eave portions of a tent, as well as the side curtains thereof, to be actuated for rolling up the same to various heights, or for allowing the same to remain in a downwardly dependent position.

A further object of my invention is to provide a tent structure which utilizes simple, elemental fittings of novel construction, readily attached, or removed, and a structure which will prove economical in the saving of time for setting up, and knocking down of the said tent structure, utilizing the teachings, and practices of my invention.

Other objects, and ancillary features resident in my invention will become apparent from an examination of the accompanying drawings, further elucidated in the ensuing description, so that those familiar with the art, will have no difficulty understanding the teachings hereinafter to be expounded as to the advantages inherent in my invention; the drawings represent various figures

2

in which like numerals are used to designate like parts, and in which,

Fig. 1 is a top view of a corner portion, or section of a tent structure.

Fig. 2 is a perspective view of the corner section indicated in Fig. 1.

Fig. 3 is a front view of one of the fittings used, showing sections of ropes, in overlapping relationship and is a view taken along the lines 3—3 of Fig. 1.

Fig. 4 is a view looking down in the direction of the arrows 4—4 of Fig. 3.

Fig. 5 is a view looking endwise, in the direction of arrows 5—5 of Fig. 3.

Fig. 6 is a corner structure, looking upwardly and substantially in the direction of the arrows 6—6 of Fig. 1, showing the triangular type of fittings used to tie a rim-rope to a hip-rope.

Fig. 7 is a view looking in the direction of the arrows 7—7 on Fig. 6.

Fig. 8 is a sectional view taken, substantially, on the line 8—8 of Fig. 5.

Fig. 9 is a front view of another type of fitting used in connecting, or attaching tent extensions, and is a view taken substantially looking in the direction of the arrows 9—9 of Fig. 1.

Fig. 10 is a view looking in the direction of the arrows 10—10 of Fig. 9.

Fig. 11 is an end view looking in the direction of the arrows 11—11 of Fig. 9.

Referring to Figs. 1 and 2, I show the need for a fitting, generally, designated 20, which is used as indicated on that view, to connect the hip sections 14 of the tent with the sections 15 of tent, see Fig. 1. To connect sections 13 of the tent, which are supported on section ropes, the fitting generally designated 20 is utilized.

To secure the hip sections, over the hip rope, the novel fixture, or fitting designated generally 39 is utilized, whereas to afford a means of adding tent sections, and eave sections, to a tent structure, to enlarge the same, the fitting generally designated 50 is utilized. The description will now endeavor to indicate, and describe in detail, the various fittings.

To begin with, the fitting generally designated 20, as well as the fittings generally designated 39, and that generally designated 50, each are provided with a recess or pocket 36 which is open at the forward end, as indicated at 37, in the lower extension provided for that purpose, on each fitting, the upper portion of the pocket 36, being provided with a downwardly dependent lip 48 which engages the tongue extension 49 of the support 31. The support 31 in turn, is provided

with ear extensions or trunnions 33 which cradle within the pocket 36, and afford an articulate type of connection to the fittings generally designated 20, 39 and 50.

The support 31 is provided with a threaded extension 32 and is secured to the top of the eave post generally designated 30. The variations in the fittings reside only in the number of recesses formed on the top surfaces thereof, to accommodate one, two, or three ropes in overlapping relationship. The fitting generally designated 20 is provided with a body 25 having four extensions, two oppositely disposed extensions 21, and two oppositely disposed extensions 22, at right angles to the said extensions 21.

A cross-like formation, or recess of semi-circular construction 34 and 35 is formed on the top surface thereof, in order to nest the ropes that may be drawn thereacross, and attached thereto. The rim-rope 19 is overlapping at right angles, as can be seen, to the section rope 16 which, in turn, may be tied to a thimble 27 securing the eave extension rope 38 for supporting the eave structure 15.

The tent structure, as can be seen, is comprised of a number of sections 13, a number of hip sections 14, and the eave structure 15. The tent, generally, designated 12 is also provided with a series of eave extension ropes generally designated 38. The section ropes 16 are preferably tied at 26 to the thimbles 27, the said section ropes also being rigidly secured to the fitting 20 by virtue of the groove 23 formed therein, and by means of the tie-ropes 24 to hold the same in rigid assemblage.

The fittings are also provided with downwardly dependent eyelets 28 to which the ropes 29, used for winding up and unwinding the side drops of the tent, are secured by pulling the said rope to function within the said eyelets, or by loosening the same. The side drops of the tent may be rolled up, or unrolled to any height desired, and the rope 29 tied in place to maintain the raised, or elevated adjustment of the side drops 60 of the tent structure.

The eave rim rope 61 also provides suitable reinforcement to the eave structure that is required. The fitting generally designated 20 is utilized throughout the tent structure whenever sections are to be connected. The hip sections 14 are interconnected preferably by the fitting generally designated 39, which consists of a body 40 having the extensions 41, 42, and 43, and having a triangulated semi-circular recess 44 therein, in order to receive and retain the rim rope 19 in right angular formation, over which is super-imposed the hip rope 17, which in turn is tied to an eyelet 27, securing the eave external rim rope 61. The eyelet 46 has the function of permitting reeving the ropes 29 therethrough when adjusting the side drops 60.

In this case, like in the preceding fixture, or fitting, the ends 41, 42, and 43 are provided with suitable notched portions in order to facilitate, firmly securing the hip ropes 17, as well as the rim rope 19, by means of cords, or ropes 45 so as to form a rigid construction.

The fitting 39 is provided with a pocket 36 having a lip 48 to receive removably the trunnions 33 on the post 31, the tongue 49 abutting the interior portion of the lip 48.

The hip rope 17 is tied at 47 to the eyelet 27 through which the eave extension rim rope 61 is laced through for securing the eave structure in taut arrangement. When extensions are to be

added, the fitting generally designated 50 is utilized. It comprises a tubular body portion 52 having a semi-circular trough 53 therein to support the section-joining rope 18, the rim ropes 19 being tied to the rings 56 and 57 extending on opposite portions thereof having bores 58 and underneath the body 52, the body also being provided with an eyelet structure 51 for attaching the rope 29 for manipulating the side drops 60 of the tent. This fixture is also provided with grooves 54, for securing the section-joining ropes 18 securely in place by means of tie-strings, or cords 55. The section-joining rope is also tied to a thimble 27 through which the eave extension rope 61 is secured. This structure is also mounted in the same fashion as the other fittings, namely 39 and 20, and serves the purpose of interconnecting and mounting tent sections which are usually provided with grommets 59 to work freely over the ropes 18, so as to facilitate assembly thereof.

The tent set-up, or knock-down is accomplished in the usual manner in accordance with the practices available in the tent construction art, and which is well familiar to those engaged in the work of setting up, or knocking down tents. The novelty of the fittings, however, will greatly facilitate the setting up, or the knock-down operation as hereinbefore expounded and clarified.

A tent of any size may be constructed, if the principles embraced in the structure illustrated in Figs. 1 and 2 are utilized, merely by adding sections of tent to the width or length of the tent, thus enabling one to construct a tent of almost any dimension of a polygonally four-sides configuration.

I wish to stress particularly, that the trunnion structure of the upright supports 31 secured to the top 30 of the posts, working in concert with the pocket portions 33 and the depending lip portions 48 furnishes an ideal means of quick attachability and removability of fittings that may be utilized in the construction of a tent of a given size, or dimension.

It is also to be noted that I provide eyelets 28, 46 and 51 on all of the fittings to facilitate the attachment of the ropes for supporting in dependent position, or in partially rolled up position, the side drops, or curtains of the tent structure. The construction also provides novel means for attaching the eave structure, or sections of a tent, thus providing a tent construction which is ideal in many respects, and especially in view of the fact that it will save considerable time in the set-up, or knock-down of the tent, a factor quite important as a labor-saving, and cost-saving feature.

Although I have herein expounded rather succinctly, and described the nature and the operation, as well as the construction of the elemental parts comprising my invention and, inasmuch as the same is susceptible to various modifications, alterations, and improvements, I herein reserve the right to all such alterations, modifications, and improvements coming within the scope and spirit of my invention, as well as all those suggested, or embraced in the accompanying drawings, and any that may fall within the purview of the foregoing description; my invention to be limited only to the sub-joined claims.

Having thus described and revealed my invention, what I claim as novel and desire to secure by Letters Patent, is:

1. Fastening means for securing the rope elements in a tent structure comprising, a fixture having a platform provided with rope cradling

7

cradling recess on its upper surface, an eyelet portion at one end and at the bottom thereof, and an open pocket portion below the said platform and provided with a depending lip portion, and two rope tying eyelet portions formed at the bottom of the said platform and disposed at substantially right angles to the said single recess; and a support provided with a threaded extension for securing the same to a tent post, and further provided with a pair of trunnions constructed and arranged to rest within the said pocket portion, the said support having also a tongue extension at its top constructed and arranged to abut the said depending lip portion, the said rope cradling recess terminating in semi-

8

cylindrical extensions provided with grooved portions on the outer surface thereof to retain tying cords for securing the said rope elements to the said fixture.

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REFERENCES CITED

The following references are of record in the file of this patent:

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