March 6, 1973 P. W. HUBER 3,718,947

TIE DOWN ROPE.

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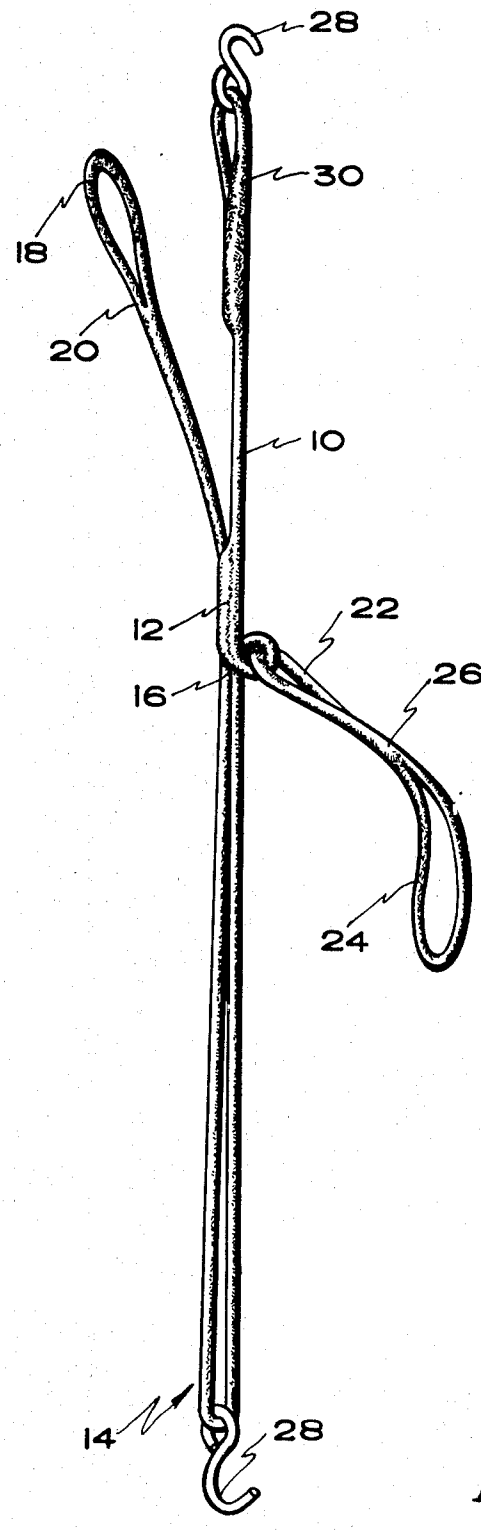


FIG. 1

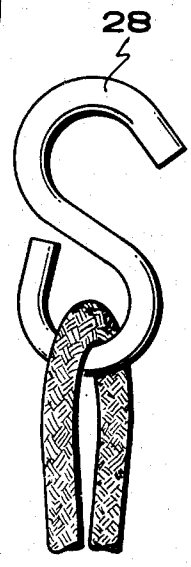


FIG. 3

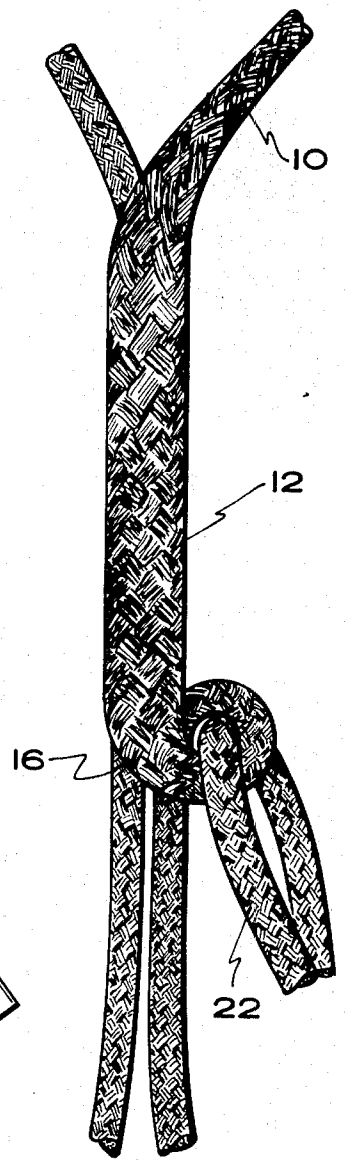


FIG. 2

INVENTOR.
Paul W. Huber
BY
C. Hamsfeld
His Attorney

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TIE DOWN ROPE

Paul W. Huber, 5440 Woodcrest Drive,
Salt Lake City, Utah 84117

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ABSTRACT OF THE DISCLOSURE

A tie down device which includes an elongated braided rope having a first connecting end and an opposite end passed through spaced strands of said rope forming a sleeve therein proximate a mid-portion of said rope thereby forming a loop on one side of said sleeve, and release means secured to the mid-portion of said rope proximate the one side of the sleeve for removing locking pressure applied to the rope by the sleeve when the rope is under tension in a tie down mode and thereby allow the rope to slide back through the sleeve.

BACKGROUND OF THE INVENTION

Over the years most people at one time or another have had the occasion to tie down various items to a rigid support member such as a trailer, truck bed, vehicle carrying rack, or the like, to be transported thereon. Generally, the items to be secured are tied to the support member with a relatively long rope or the like which is passed over and around the item and then securely tied to the support member. While such established tie down methods are generally effective for their intended purpose they are generally time consuming and it is essential that the tie down rope be carefully secured to the support member so that it does not become undone as pressure is applied to the items to be secured. To facilitate the tie down procedure various tie down ropes and straps have been devised. Examples of such tie down devices are described in the following U.S. Pats., to wit: No. 2,455,237, No. 2,540,888, No. 2,715,008, No. 2,809,008, No. 2,983,413, No. 3,388,886 and No. 3,416,762 all of which disclose devices which require the use of either buckles or other specially designed locking structures for securing the devices in a taut support position. Accordingly, a great need has arisen for a tie down device that can be easily shortened and locked in a tie down mode and thereafter lengthened for release without requiring the use of specially designed locking buckles, clamps, or the like.

It is the principal objective of this invention to provide a tie down rope capable of having its effective length shortened for tie down purposes.

It is a further objective of the invention to provide a tie down rope which is securely held in a tie down mode until it is desired to lengthen the effective length of the rope.

BRIEF DESCRIPTION OF THE INVENTION

A tie down device which comprises an elongated braided rope having a first connecting end and an opposite end which is passed through spaced strands of said rope which form a sleeve therein proximate a mid-portion of said rope to thereby form a rope loop on one side of said sleeve; and release means secured to said mid-portion of said rope and proximate said one side of said sleeve for urging said sleeve to a release position.

In another embodiment of the invention first connecting means are secured to said first end of said rope and second connecting means are slidably secured to said loop.

In still another embodiment of the invention, the rope is formed from a plurality of elongated braided plastic strands.

BRIEF DESCRIPTION OF THE DRAWINGS

So that the invention may be more readily understood and carried into effect, reference is made to the accompanying drawings which are offered by way of example only and are not to be taken as limiting the invention, the scope of which is defined by the appended claims which obviously embrace equivalent structures.

FIG. 1 is a plan elevation view of the preferred tie down rope of the invention fitted with connecting hooks.

FIG. 2 is a plan elevation view of the retaining sleeve portion of the rope used to secure the rope for tie down purposes.

FIG. 3 is a plan elevation view of a connecting hook with a segment of the tie down rope secured thereto.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now more particularly to the drawings, the tie down device of the invention is shown in FIG. 1. As illustrated, the device is constructed from an elongated rope **10** preferably about 3/16 to ½ inch in diameter, which is formed from a plurality of strands of conventional rope forming material, at least a portion of which are braided or otherwise woven together. Preferably, the rope strands are formed from a synthetic resin such as the resins sold under the trademark, nylon, Mylar, etc. The braided strands along a midportion of rope **10** are separated apart from each other so that a sleeve **12** about 1 to 4 inches in length and sized to receive rope **10** is formed therein. Accordingly, when rope end **20** is passed through sleeve **12** a closed loop **14** is formed adjacent to the side **16** of said sleeve. A loop **18** having a fixed size is preferably secured to rope end **20** to prevent said end from slipping back through sleeve **12** and further act as a handle to aid in pulling the rope through sleeve **12** thereby decreasing the size of loop **12** and shortening the effective length of rope **10** for tie down purposes.

Release rope **22** is secured to rope **10** proximate end **16** of sleeve **12** for the purpose of removing locking tension from sleeve **12** when the tie down rope of the invention is in a tie down mode so that rope **10** will pass back through sleeve **12** as will be hereinafter described in detail. A loop **24**, similar to loop **18**, is preferably positioned proximate the end **26** of release rope **22** to aid in pulling said rope **22**. It is to be noted that loops **24** and **18** can be formed in a conventional fashion by securing the ends of ropes **10** and **22** to a mid-portion of said ropes, and this is preferred.

Finally, an attaching hook **28** is tied to end **30** of rope **10** in a conventional fashion and a similar attaching hook **30** is slidably secured to loop **14**. The hooks **28** and **30** are preferably formed from a relatively rigid metal to prevent them from being easily deformed when substantial tension are applied thereto. The attaching hooks **28** and **30** are most preferably shaped in the fashion illustrated in FIG. 3.

In using the tie down device of the invention attaching hooks **28** and **30** are secured to a rigid support member and rope **10** positioned between hooks **28** and **30** is passed over the item to be secured to the support member. Thereafter loop **18** is pulled to urge rope **10** to slide through sleeve **12** wherein the effective length of the tie down rope is shortened until the portion of the rope between hooks **28** and **30** is taut. When this occurs, because of the tension applied to sleeve **12** said sleeve acts as a locking mechanism and prevents rope **10** from sliding back through the sleeve. In this fashion the rope is maintained taut even when very substantial tension is applied thereto. When it is desired to loosen sleeve **12** so that rope **10** can slide back therethrough, loop **24** is pulled which applies a reverse force to sleeve **12** with rope **22** and the

locking pressure applied by the sleeve to rope **10** is removed and said rope slides back through the sleeve to a loose position.

I claim:

1. A tie down device which comprises an elongated braided rope having a connecting end and an opposite end passed through spaced strands of said rope which form a sleeve in said rope proximate a mid-portion thereof thereby forming a loop in said rope which extends away from one side of said sleeve; and release means secured to said mid-portion of said rope proximate said one side of said sleeve for urging said sleeve to a release position.

2. The tie down device of claim **1** wherein said release means comprises a second rope connected to said elongated braided rope.

3. The tie down device of claim **2** wherein attaching means are slidably mounted on the portion of said elongated braided rope which forms said loop.

4. The tie down device of claim **3** wherein said attaching means comprises a first metal hook.

5. The tie down device of claim **4** wherein a second metal hook is secured to said first connecting end of said elongated braided rope.

6. The tie down device of claim **2** wherein said elongated braided rope is formed from a plurality of elongated plastic strands.

7. The tie down device of claim **2** wherein hand hold loops are secured to said opposite end of said elongated

braided rope and to the end of said second rope opposite the end of said second rope connected to said elongated braided rope.

8. The tie down device of claim **7** wherein said elongated braided rope is formed from a plurality of elongated plastic strands.

9. The tie down device of claim **8** wherein attaching means are slidably mounted on the portion of said elongated braided rope which forms said loop.

10. The tie down device of claim **9** wherein said attaching means comprises a first metal hook.

11. The tie down device of claim **10** wherein a second metal hook is secured to said first connecting end of said elongated braided rope.

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DONALD A. GRIFFIN, Primary Examiner

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