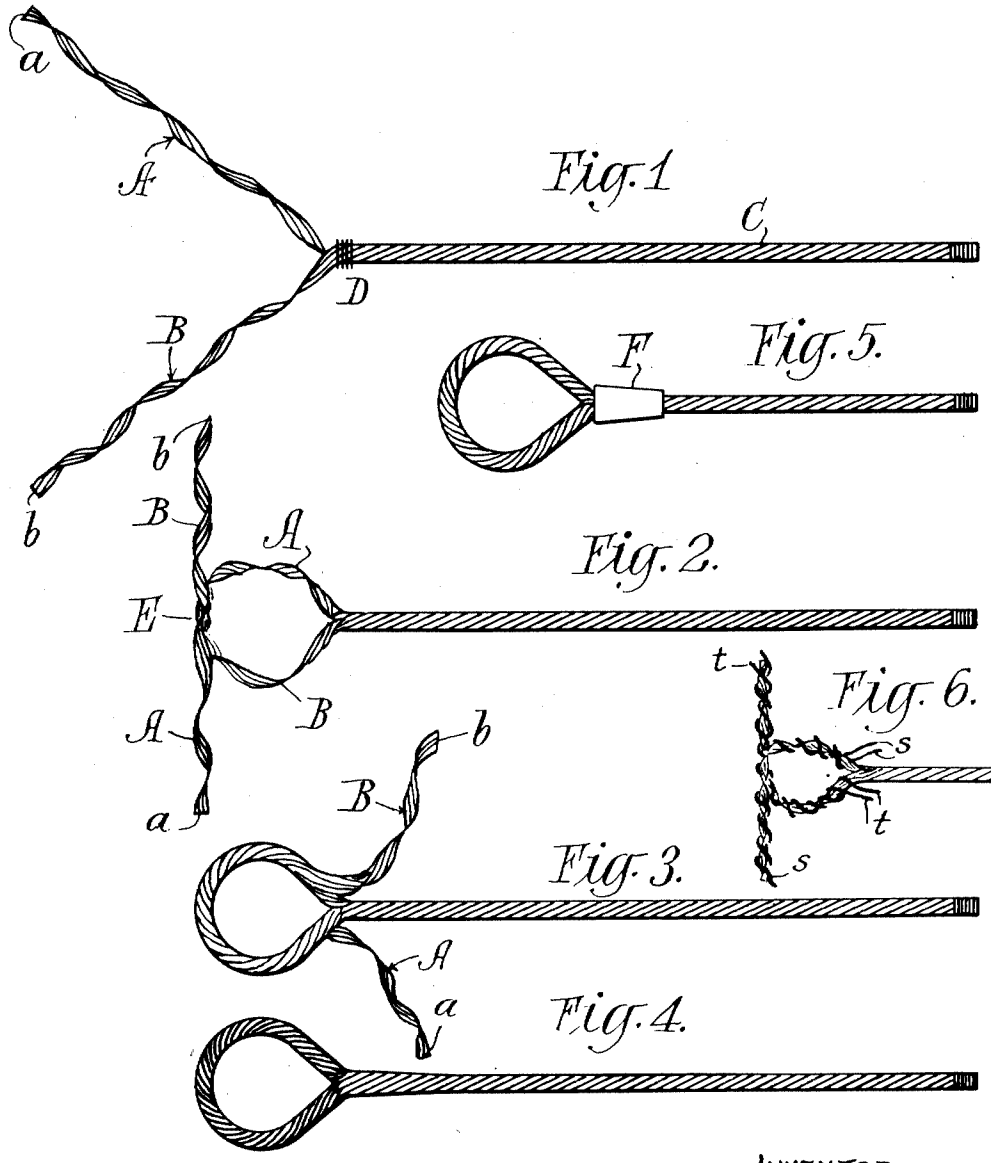
J. F. HOWE.

ROPE SLING.

APPLICATION FILED MAY 29, 1919.

1,334,244. Patented Mar. 16, 1920.



Witnesses

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ROPE-SLING.

1,334,244. Specification of Letters Patent. Patented Mar. 16, 1920.

Application filed May 29, 1919. Serial No. 300,519.

To all whom it may concern:

Be it known that I, JAMES F. HOWE, a citizen of the United States, residing in Worcester, Massachusetts, have invented certain new and useful Improvements in Rope-Slings, of which the following is a specification.

This invention relates to rope slings and to the method of forming the eyes or loops therein. It is well known that ropes and wire cables are designed to operate under various loads and are graded to sustain definite loads or strains in practial use.

Experience has taught that the loops or eyes formed in cables by known methods do not hold when subjected to working stresses allowable for the given sizes of ropes or cables.

One of the objects of this invention is to construct a loop in a rope or cable which will not fail when the maximum stress allowable for said rope or cable is applied thereto. Another object is to construct the loop so that auxiliary strands may be woven therein to increase its strength. Other objects will be apparent from the following description and claims when read in connection with the accompanying drawings.

Figure 1 illustrates the end of a rope or cable in which portions thereof have been unlayed prior to forming a loop therein;

Figs. 2 and 3 illustrate different steps in forming the eye or loop;

Figs. 4 and 5 show the finished loop or eye formed in the cable;

Fig. 6 is illustrative of a loop or eye which is formed with a number of interwoven reinforcing strands.

In forming the eye or loop according to my invention I unlay two component portions A and B from the rope C and place a seizing or binding at the point D beyond which it is not desired to open up the rope, it being clear that the length of the portions A and B may be varied according to the size of the eye to be formed. The portions A and B are preferably, though not necessarily, formed of an equal number of strands, and said portions may be formed by unlaying either adjacent or alternate strands from the rope proper.

In forming the loop the portions A and B are first bent around and overlapped as shown in Fig. 2 and fastened at the point E. The portion B is now taken and following the direction of the lay of the rope is intertwined around the portion A and likewise the portion A is intertwined around the portion B thereby forming up the loop as shown in Fig. 3. The ends *a* and *b* are now fastened to the body of the rope either by splicing them into the strands thereof as indicated in Fig. 4, below the seizing at the point D, or by binding them at F by means of a seizing or a ferrule as indicated in Fig. 5. Or these ends may be both spliced and seized when it is desired.

In cases where extra strength at the loop is desired auxiliary strands *s* and *t* may be intertwined with the portions A and B when forming the loop as illustrated in Fig. 6. These extra strands will compensate for the loss of strength due to the wear on the loop when in use. It is clear however that the known forms of thimbles may be inserted in the loops to prevent wear thereon when desired.

Rope slings having loops or eyes as described herein are capable of withstanding the stresses allowable for the sizes of cable in which they are formed and are therefore more efficient and possess greater utility than those heretofore used.

Though I have described with great particularity the steps in making my improved rope sling and the construction thereof, it is not to be construed that my invention is to be limited to such a method or structure except as defined in the following claims.

What I claim is:

1. The method of forming an eye in a rope which consists in first unlaying a short length of the end of the rope and dividing said short length into two portions and then intertwining said portions with each other to form a loop and joining the ends of said portions to the rope proper.

2. The method of forming an eye in a rope which consists in first unlaying a short length of the end of the rope and dividing said short length into two portions and second forming a loop by first overlapping and securing the said portions at a point intermediate their free ends and the body of the rope, and then intertwining said portions with each other to form a loop and splicing the ends of said portions to the rope proper.

3. The method of forming an eye in a rope which consists in first seizing the rope at a point beyond which it is not desired to form the eye, then unlaying the end of the rope down to said seizing and dividing

said short length into two portions, then forming a loop by first fastening the said portions at a point intermediate their free ends and the body of the rope, and then laying each of said portions about the other and joining the ends of said portions to the rope proper.

4. In a rope having a seizing at a point spaced from its end, a loop composed of two component integral portions of said rope above said seizing, said portions being overlapped on each other at the head of said loop and intertwined with each other, and having their free ends secured to the rope proper below said seizing.

5. In a rope having a seizing at a point spaced from its end, a loop composed of two component integral portions of said rope above said seizing, said portions being overlapped on each other at the head of said loop and intertwined with each other, and having their free ends spliced into the rope proper below said seizing, and a second seizing secured over and around said rope proper and said spliced ends to firmly hold them in position.

6. In a rope a loop composed of a component integral portion of said rope divided to form two portions, said portions being overlapped on each other at the head of said loop and intertwined with each other, and having their free ends spliced into the rope proper below the loop.

In witness whereof I have hereunto signed my name.

JAMES F. HOWE.