C. C. SUNDERLAND.

WIRE ROPE SLING AND THE LIKE.

APPLICATION FILED JUNE 17, 1914. RENEWED AUG. 25, 1916.

1,222,048. Patented Apr. 10, 1917.

Fig. 1.

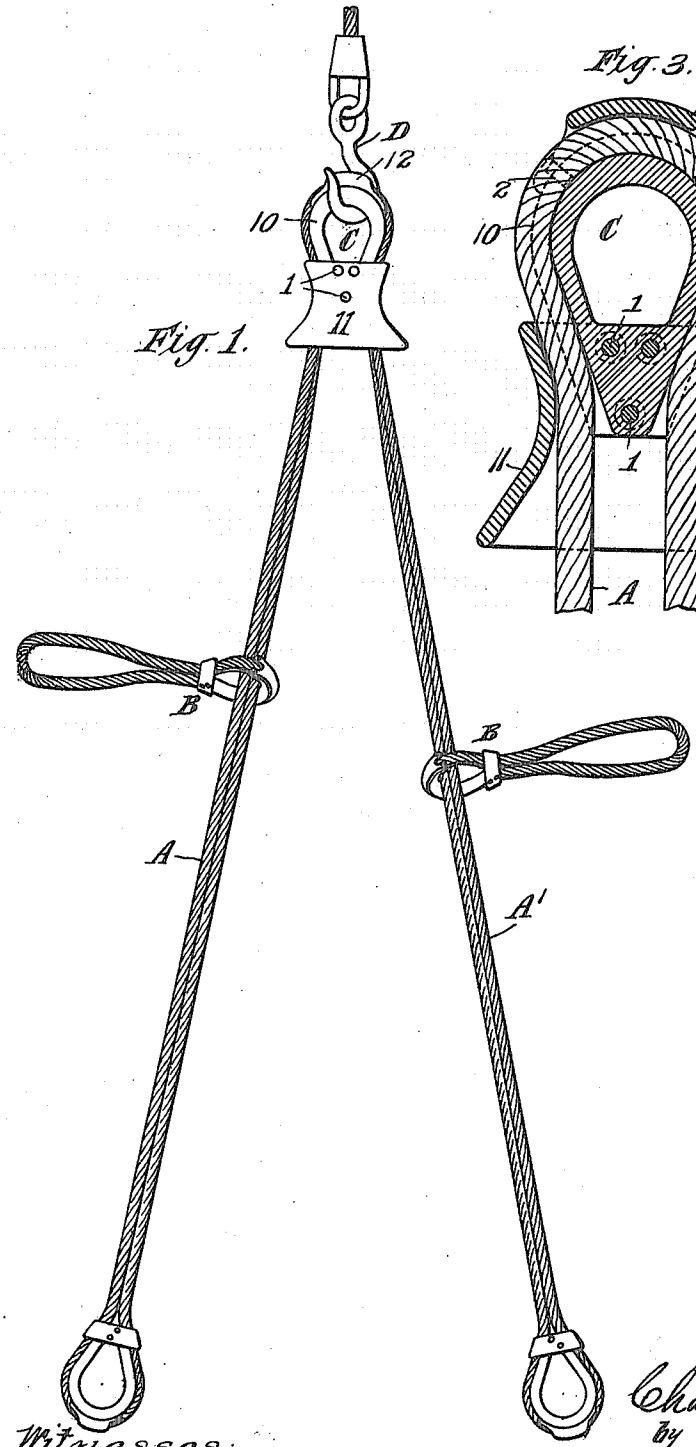
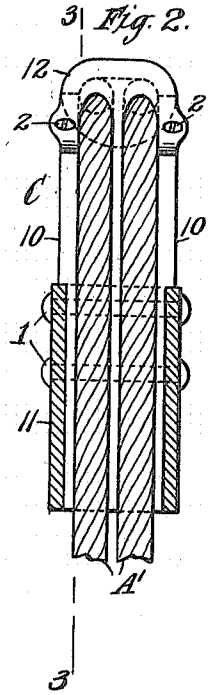


Fig. 3.

Fig. 2.



Witnesses:
E. Vanderhoef.
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UNITED STATES PATENT OFFICE.

CHARLES C. SUNDERLAND, OF TRENTON, NEW JERSEY, ASSIGNOR TO JOHN A. ROEBLING'S SONS COMPANY, A CORPORATION OF NEW JERSEY.

WIRE-ROPE SLING AND THE LIKE.

1,222,048. Specification of Letters Patent. Patented Apr. 10, 1917.

Application filed June 17, 1914, Serial No. 845,546. Renewed August 25, 1916. Serial No. 116,935.

To all whom it may concern:

Be it known that I, CHARLES C. SUNDERLAND, a citizen of the United States, residing at Trenton, county of Mercer, and State of New Jersey, have invented certain new and useful Improvements in Wire-Rope Slings and the like, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

This invention relates particularly to wire rope slings of that class having two wire rope loops combined to form a bridle sling, the especial object of the invention being to provide a rope thimble by which the two loops shall be combined into a single eye to receive the hoisting hook, thus avoiding the use of any hook, gromet, ring or other device, for connecting the two eyes of the loops.

In the accompanying drawings, forming a part of this specification, there is shown a bridle sling embodying all the features of the invention in their preferred form, and this construction will now be described in detail and the features forming the invention then specifically pointed out in the claims.

In the drawings,—

Figure 1 is a side view of the bridle sling, with the double rope thimble.

Fig. 2 is an edge view of the thimble and ropes, and

Fig. 3 is a section on the line 3—3 of Fig. 2.

Referring to the drawings, the bridle sling is shown as similar to that of United States Letters Patent to Ruland No. 1,063,738, dated June 3, 1913, A, A′ being the two loops or slings of the bridle, with the running gromets B thereon. The two slings or loops A, A′, however, instead of having separate thimbles forming separate eyes at the load end, as shown in the Ruland patent, have one thimble C forming a single eye of the two loops or slings, which eye receives the hoisting hook D. As shown, the eye piece or thimble proper 10 is provided with two grooves side by side, which receive, respectively, the rope of the two loops or slings A, A′, and at the inner end the eye piece or thimble proper 10 is secured by rivets 1 to a squeezer 11 inclosing the ropes, which squeezer preferably extends somewhat along the ropes from the thimble proper and is curved outward so as to form curved bearing surfaces for the rope of the loops or slings A, A′, thus permitting a considerable spread of the two loops in the use of the sling and avoiding the wear which would result from bearing on the straight inner ends of the squeezer. The thimble may be used without any means for holding the ropes in the grooves at the outer side of the thimble, but preferably and as shown, the thimble will be provided with a clamping piece 12, grooved to receive the outer sides of the ropes and held in position on the thimble by screws 2, or the usual ears on opposite sides of the thimble may be used for this purpose. The two loops or slings A, A′, are thus combined into a single hook eye and slip of the ropes on the thimble permitted to equalize the tension on the two parts of the ropes.

While the double rope thimble has been shown as applied in connection with a wire rope sling, and such a construction is claimed specifically, it is to be understood that this thimble, either with a plurality of rope grooves or only a single rope groove, may be used also for other purposes and in itself forms a part of the invention.

What I claim is.

1. A wire rope sling having a plurality of loops each formed of double wire rope with its two parts side by side, and a single eye at the hoisting end consisting of a metal thimble having grooves side by side for the ropes of the loops, and having at its inner end a squeezer separate from and secured to the thimble with outwardly curved surfaces extending along the ropes, said squeezer consisting of a continuous ring inclosing the inner ends of the thimble and secured to the thimble between the rope grooves and constructed to permit the ropes to slide on the thimble under strain.

2. A wire rope sling having a loop formed of double wire rope with its two parts side by side, and an eye at the hoisting end consisting of a metal thimble having grooves side by side for the rope of the loop, and having at its inner end a squeezer separate from and secured to the thimble with outwardly curved surfaces extending along the rope, said squeezer consisting of a continuous ring inclosing the inner ends of the thimble and secured to the thimble between the rope grooves and constructed to permit the rope to slide on the thimble under strain.

3. A rope thimble having a plurality of rope grooves side by side, and a squeezer separate from and secured to the thimble with outwardly curved surfaces extending along the ropes, said squeezer consisting of a continuous ring inclosing the inner ends of the thimble and secured to the thimble between the rope grooves and constructed to permit the ropes to slide on the thimble under strain.

4. A rope thimble having a rope groove and a squeezer separate from and secured to the thimble with outwardly curved surfaces extending along the rope, said squeezer consisting of a continuous ring inclosing the inner ends of the thimble and secured to the thimble between the rope grooves and constructed to permit the rope to slide on the thimble under strain.

In testimony whereof, I have hereunto set my hand in the presence of two subscribing witnesses.

CHARLES C. SUNDERLAND.

Witnesses:

RAYMOND APPLEGATE,

SAML. E. WILSON.