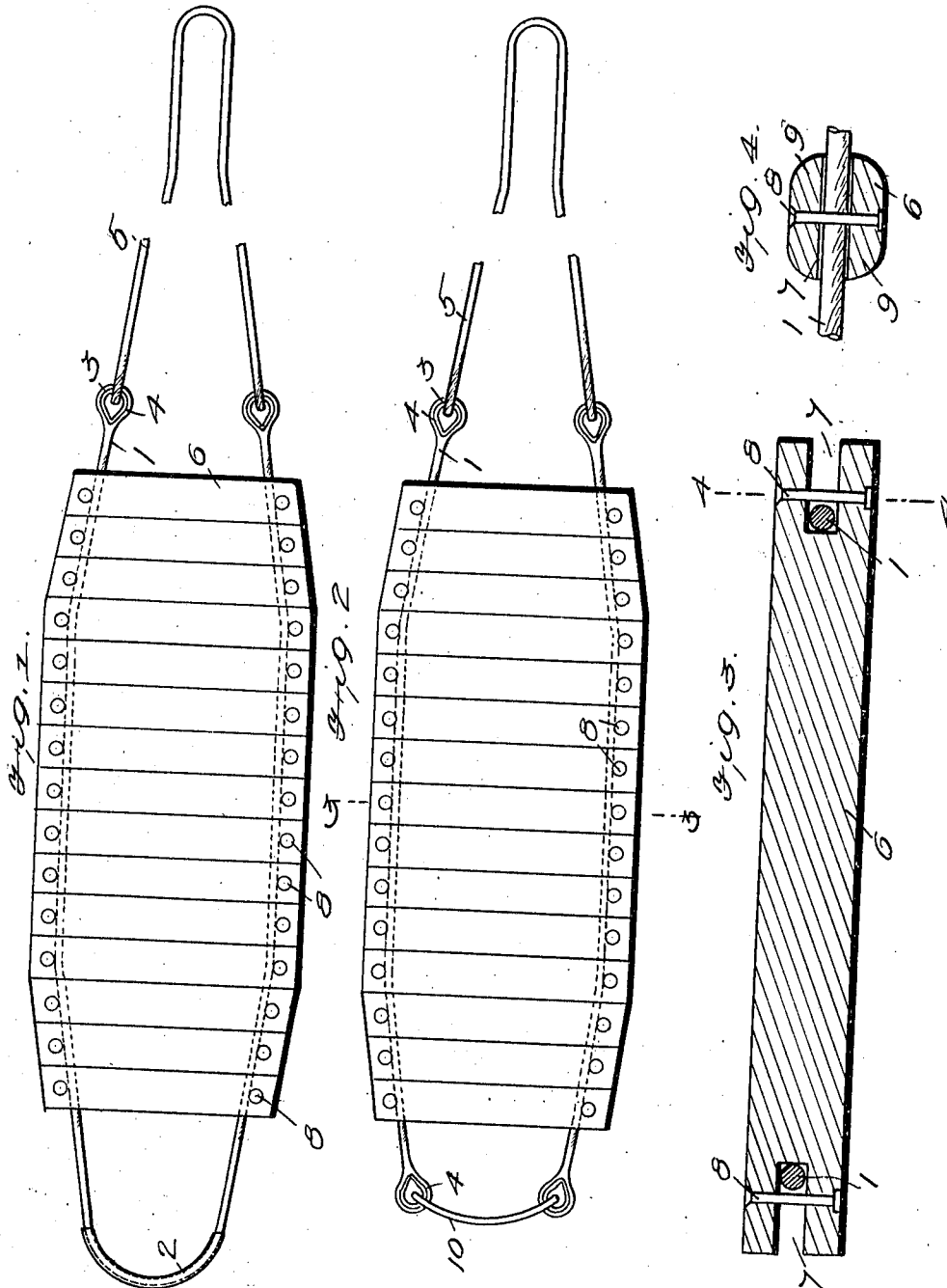


1,314,397.

I. HEFFRON.
CARGO SLING.
APPLICATION FILED APR. 2, 1918.

Patented Aug. 26, 1919.



WITNESSES

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ISAAC HEFFRON, OF GALVESTON, TEXAS.

CARGO-SLING.

1,314,397.

Specification of Letters Patent.

Patented Aug. 26, 1919.

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To all whom it may concern:

Be it known that I, ISAAC HEFFRON, a citizen of the United States, and a resident of Galveston, in the county of Galveston and State of Texas, have invented certain new and useful Improvements in Cargo-Slings, of which the following is a specification.

My invention relates to improvements in cargo slings, and it consists in the constructions, combinations and arrangements herein described and claimed.

An object of my invention is to provide an improved cargo sling to be used in loading and discharging the cargo of a ship, one of the important features of the sling being the flexible and slatted base which by reason of its peculiar construction readily conforms itself to variously shaped objects.

Another object of the invention is to provide a cargo sling including a flexible support consisting of longitudinally disposed cables, having a plurality of slats mounted thereon by slotting the ends of the slats to receive the cables, said slats being slidable on the cables and thereby readily conforming to variously shaped objects.

Another object of the invention is to provide a cargo sling of such construction and consisting of parts of such a nature that they may be employed to make cargo slings of various lengths should it become necessary to do so.

Another object of the invention is to provide a cargo sling comprising a flexible slat support formed with a loop in one end, and having a rope loop at the other end adapted to be threaded through the support loop, providing a single suspension and at the same time, providing means for automatically tightening the sling on the load.

Other objects and advantages will appear in the following specification, reference being had to the accompanying drawing in which:

Figure 1 is a plan view of the cargo sling illustrating the use of a single wire cable,

Fig. 2 is a plan view of the cargo sling illustrating the use of a pair of strands to form the flexible support,

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

Fig. 4 is a detail cross section on the line 4—4 of Fig. 3.

In carrying out my invention I provide in one of the forms of the invention a flexi-

ble support consisting of a wire cable 1 which takes the shape of a loop substantially as shown in Fig. 1. A leather chafing piece 2 is fitted on the bight of the wire cable 1 and the free ends of the cable are formed into eyelets 3 in which metallic thimbles 4 are fitted.

The ends of a rope loop 5 are attached to the eyelets 3, and the bight of the loop 5 is intended to be threaded through the bight of the cable 1 and attached to the hook of the hoisting mechanism in lifting the load. The dual function of providing a single suspension and automatically tightening the cargo sling upon the load is thus performed.

Mounted crosswise of the wire cable or loop 1 is a plurality of slats 6 which are made of wood or any other suitable material and have slots 7 cut into the opposite ends to provide recesses which are occupied by the flexible supports. Bolts 8 or other readily removable means are fixed in place through the ends of the slats 6 as shown in Fig. 3, and provide keepers for the flexible supports. It will be observed that the slats 6 are freely slidable upon the flexible supports and thus readily conform themselves to the object which is being conveyed.

To facilitate the relative movement of the slats 6, the longitudinal edges are rounded as at 9. The advantage of rounding the edges of the slats 6 will be readily appreciated when it is understood that in bending the cargo sling upwardly as in conforming it to the load, the various slats rotate one upon the other and were it not for the rounded edges as just described, there would be a certain amount of binding of edge upon edge and this would have an undesirable effect in actual practice. It will be observed in Figs. 1 and 2 that the end slats 6 gradually diminish in length so that the ends of the base taper slightly. The purpose of this tapered formation is, to gradually bend the parts of the cable 1 toward the bight in the cable 1 and in the rope loop 5. Obviously were it not for this tapered formation, the bend in the parts of the flexible support would be too sudden where it leaves the end slats, thus causing undue wear on the flexible support.

A slightly different form in the flexible support is shown in Fig. 2. Here the flexible support 1 consists of a pair of strands with eyelets 3 in each end. These eyelets have

metallic thimbles 4 and the ends of the rope loop 5 are attached in one pair of these eyelets as shown, while a short rope section 10 is secured between the other two eyelets.

5 Both of the forms of the invention operate the same, but it is conceivable that the form of the invention shown in Fig. 2 may have some advantages over the form shown in Fig. 1.

10 The strands 1 in Fig. 2 may be made in various lengths, that is to say a supply of strands of various lengths may be kept on hand. Similarly, a supply of the slats 6 may be kept on hand and should it be desired to make a longer cargo sling, a pair of strands of a suitable length are selected and then the slats are attached by simply removing and replacing the bolts 8 so that the slats are fitted in position on the strands.

20 One of the important features of the invention resides in the arrangement of attaching the slats to the flexible supports. It will be observed that the flexible supports are well housed within the ends of the slats and thus are thoroughly protected from damage as would ordinarily result by the rough usage to which the cargo sling is put. In operation the load is simply placed on the base of the sling which consists of the slats 6, and the bight of the rope loop 5 is passed through the bight of the flexible support and then is attached to the hook of the hoisting apparatus. On pulling upwardly, the cargo sling tightens upon the load and the slatted base at once conforms to the shape of the load. The rounded longitudinal edges 9 illustrated more particularly in Fig. 4, make it possible to do this more rapidly than would otherwise be the case. As
40 was formerly explained, the absence of sharp edges on the slats 6 prevent wedging, binding and breaking of the slats and thus the

efficiency of the cargo sling is greatly enhanced.

While the construction and arrangement 45 of the cargo sling as illustrated in the accompanying drawings, is that of a generally preferred form, obviously modifications and changes may be made without departing from the spirit of the invention or the scope 50 of the claims.

I claim:—

1. A cargo sling, comprising a looped cable with eyelets at the free ends and means for preventing chafing of the cable at the looped end; a rope loop attached to said eyelets and adapted to be drawn through the cable loop in hoisting the load; a flexible load supporting base carried by said cable, comprising slats having rounded adjacent edges to facilitate relative movement and provided with slotted ends to receive and house the side members of the cable; and means extending through said slotted ends forming keepers for said cable members. 55 60 65

2. A cargo sling, comprising longitudinal flexible supports consisting of a looped cable with a bight at one end having protecting means at one end and eyelets at the other, a slatted base spanning the flexible supports, the slats of said base having slotted ends with retaining means for receiving and keeping the support in a protected position, the ends of said slotted base being tapered to gradually lead said supports to the regions of the bight and eyelets; and a rope loop attached to said eyelets; adapted to be drawn through the cable loop in lifting a load. 70 75

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Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."