Jan. 15, 1929. 1,699,114

S. M. MEAGHER

SLING

Filed Nov. 17, 1926

Fig. 2.

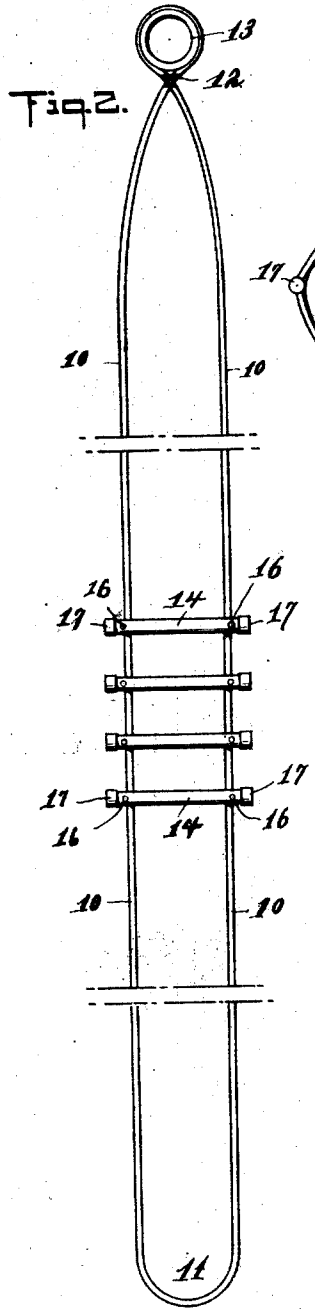


Fig. 1.

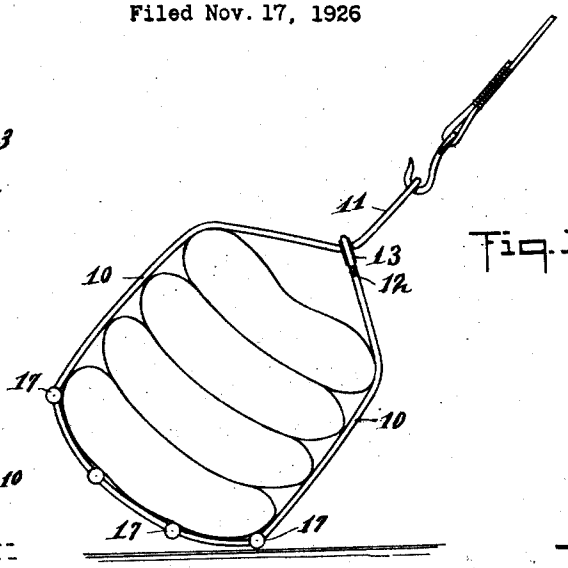


Fig. 3.

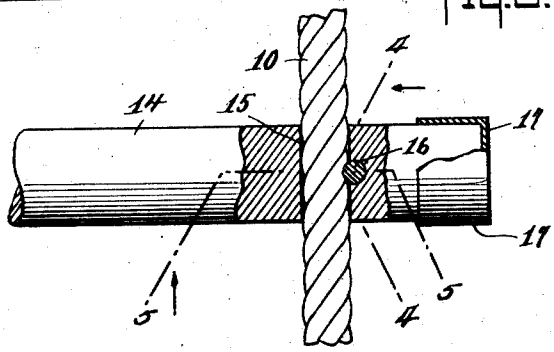
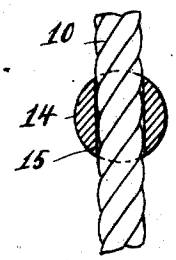


Fig. 4.



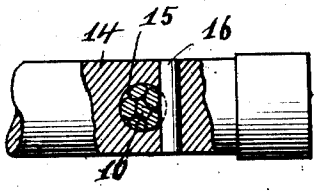


Fig. 5.

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UNITED STATES PATENT OFFICE.

STEPHEN M. MEAGHER, OF NEW YORK, N. Y.

SLING.

Application filed November 17, 1926. Serial No. 148,829.

The invention relates to flexible encircling loops employed in transferring merchandise from ship to dock or like service in loading and unloading operations, and is particularly designed for handling bags containing, cement, flour and other comminuted products.

It has been the usual practice to extend the limbs of the loop upon the deck or floor and pile the bags one upon another transversely of the limbs to make up a load, then pass the bights of the loops one through the other and attach the projecting bight to a hook on the hoisting cable, by which the load is dragged and hoisted and again lowered at the point of delivery. In this operation the limbs of the loop may lie so close together as to produce undue strain along a single line across the lowermost bag causing the latter to break and lose the contents, or if the limbs be too widely separated the grip on the bags is insecure and one or more bags may drop and break during transference, with the added danger of personal injury to the crew, and as it is usually necessary to drag the load a greater or less distance along the deck before it is lifted and swung clear, many bags are torn and their contents thus wasted.

The object of the invention is to provide a sling by the use of which the above objectionable features are lessened or entirely avoided, and which shall be light, inexpensive and easily handled and operated.

The invention consists in certain novel features of construction by which the above and other objects are attained, to be hereinafter described and claimed.

The accompanying drawings form a part of this specification and show the invention as it has been carried out in practice.

Figure 1 is a side view of a load of bags enclosed in the sling and about to be lifted.

Figure 2 is a plan view of the sling distended by its stretchers and in position to receive the load of bags.

The remaining figures are on a larger scale and show details.

Figure 3 is plan view showing an end of a stretcher and the means of securing it to a limb of the loop, and is partly in horizontal section.

Figure 4 is a transverse section of such end, taken on the line 4—4 in Figure 3.

Figure 5 is a sectional elevation corresponding to Figure 3, the plane of section being indicated by the lines 5—5 in Figure 3.

Similar reference numerals indicate the same parts in all the figures.

The sling comprises a closed loop of rope or like flexible material consisting of two limbs 10, an open bight 11, at one end of the loop, and a closed bight 12 at the opposite end in which is secured an annularly grooved eye or ring 13.

At about the midlength of the limbs 10 but preferably somewhat nearer to the eye 13 is located a spaced series of stretchers 14 extending transversely from one limb to the other serving to hold the limbs separated and parallel with each other along that portion of the loop.

Each stretcher 14 is preferably of hardwood cylindrical in form and is fastened at its opposite ends to the limbs 10 by boring the ends diametrically as at 15 and passing the limbs through the holes thus produced. After properly spacing the stretchers the latter are securely held in position by pins 16 driven through the ends of each at a right angle to the holes 15 and sufficiently close to the margin thereof as to pinch the limbs 10 and thus hold the stretchers firmly against movement relatively to the limbs.

The projecting ends of the stretchers are protected and reinforced by ferrules or caps 17.

In using the improved sling it is stretched upon the floor or deck and the bags 18 of cement or the like piled one upon another transversely of the sling and upon the series of stretchers 14, the open bight 11 is then passed through the eye 13 and the hoisting hook 19 of the hoisting cable 20 engaged in the protruding portion of the open bight 11. The load is then hoisted and swung to the point of delivery. It will be noted that the stretchers insure the proper disposition of the limbs relatively to the bags to avoid cutting or the escape of the latter in transit and also protect the lowermost bag against abrasion or tearing due to dragging the load in initiating the hoisting movement or at its deposition. The bags are freed from the sling in unloading by drawing the bight 11 through the ring or eye 13 as will be understood.

The ferrules or caps 17 take a large portion of the wear to which the stretchers are exposed and also protect them against splitting at the ends.

The waste due to loss of the bag contents is

an important item in the saving effected by the use of the invention, to which may be added the rebate usually allowed on bags returned in good condition to the shipper, and the slings themselves protected by the stretchers greatly outlast the ordinary slings not thus protected.

The improved sling is light, reversible, easily handled and efficient and is well adapted to resist the rough usage to which it is subjected.

I claim:—

The sling described composed of a closed loop, of flexible material having two limbs, an open bight at one end and a closed bight at the other end and a ring in said closed loop-bight, and stretchers strung upon said limbs at spaced distances apart, and pins driven through the stretchers at opposite ends at right angles to said limbs and engaged in said limbs to pinch the latter and hold the stretchers firmly against movement relatively to each other.

In testimony that I claim the invention above set forth, I affix my signature hereto.

STEPHEN M. MEAGHER.