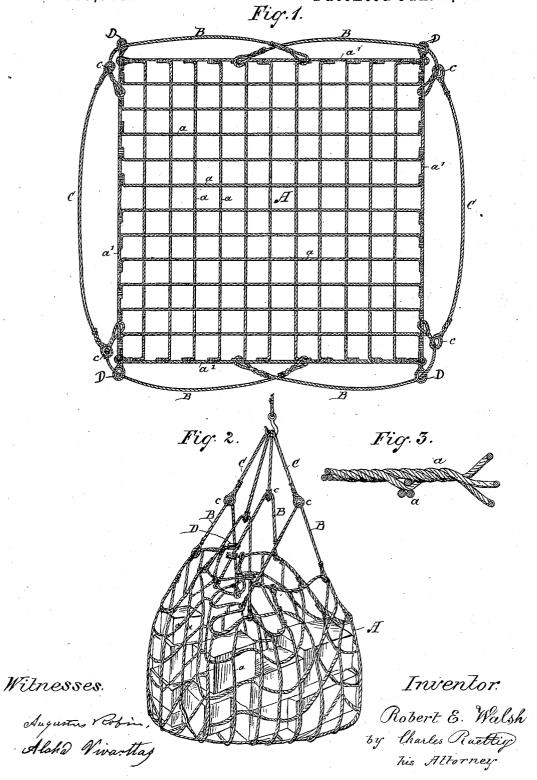
## R. E. WALSH.

HOISTING SLING.

No. 355,361.

Patented Jan. 4, 1887.



N. PETERS. Photo-Lithographer. Washington, D. C.

## UNITED STATES PATENT OFFICE.

ROBERT E. WALSH, OF NEW YORK, N. Y.

## HOISTING-SLING.

SPECIFICATION forming part of Letters Patent No. 355,361, dated January 4, 1887.

Application filed August 20, 1886. Serial No. 211,360. (No model.)

To all whom it may concern:

Be it known that I, ROBERT E. WALSH, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Net-Slings for Hoisting Purposes, of which the following is a specification.

My invention relates to that kind of con-10 trivances by means of which packages and objects that require to be hoisted, as in lading and unlading ships, ears, wagons, &c., are transferred from one place to another; and the object of my invention is to provide means by which these operations can be performed more expeditiously and with greater safety to the packages or the operators than has heretofore been attained. I attain this object by the improvements shown in the accompanying draw-20 ings, of which-

Figure 1 is a plan view of my net-sling as extended upon the ground ready for the reception of the articles to be hoisted. Fig. 2 is a side view of my net-sling as in act of hoist-25 ing a variety of packages, showing the operation thereof. Fig. 3 is a detail of the construction of my invention.

Similar letters refer to similar parts through-

My invention consists of a net, A, so made that it can be instantly spread, as shown at Fig. 1, upon the floor or ground. Numerous articles, without especial care as to size or shape, may be piled thereon, and the support-35 ing-ropes C", being hooked upon the purchase, will by the mere act of hoisting draw the side ropes, B, through the eyes D, and purse the sling into a safe bag which will not exert excessive pressure upon any part of its contents, 40 and it may be transported and emptied when desired by the reverse of the loading operation—that is, the net or sling is lowered in place, the supporting ropes C"unhooked from the purchase, and the sling A thrown down 45 flat, leaving the pile of packages as at first arranged without risk of loss by breakage, slipping, or loss of time.

I make the net or sling A of rope of any suitable material. The component cords a of 50 the net or sling lie in position across each other at right angles, all of those lying in one direction being above, and all of those running across

them being below. At the points where the cords cross each other one strand of each is interlaced with one strand of the other, as shown 55 in Fig. 3. By this means I avoid the large knots which are found in common netting, and which tend to injure the goods in using, besides causing the net to wear out sooner by the cords being worn off from the knots by the 60 continuous contact with the goods to be loaded, while the intermediate parts of the cords remain intact. The net or sling A is surrounded by a strong cord, a', properly secured to the netting, and having at the corners thereof 65 thimbles or eyes forming eyes D, for the side ropes, B, which are short ropes secured at one end to the binding a', near one of the eyes D, through which it is passed and then secured to the binding-cord upon the contiguous side 70 of it, but some ways past the center of that side, so that the side ropes, B, cross each other at one end, but are some distance apart at the other.

Upon the side ropes, B, are eyes C, which 75 are secured to the ends of the supportingropes C". These eyes C are loose upon, B, so that as the load is hoisted the side-ropes B can pass through both the eyes C and D, and permit the weights to distribute and equalize 80 the various strains and tensions.

It will be seen that these nets or slings can be used either side up.

Having thus described the nature and uses of my invention, what I claim, and desire to 85 secure by Letters Patent, is-

A hoisting sling consisting of a net having eyes D at its corners, ropes B, attached at one end to the sides of the net and passed through the eyes D, and attached at their other ends 90 to the ends of the net, and the supportingropes C, connected by means of eyes to the ropes B, at the ends of the net, the supporting-ropes C being adapted to draw the ropes B through the eyes D, and to purse the sling, 93 all combined to operate substantially as set

Signed at New York city, in the county of New York and State of New York, this 18th day of August, A. D. 1886. ROBERT E. WALSH.

Witnesses:

H. E. PERRIN. M. S. PALMER.