

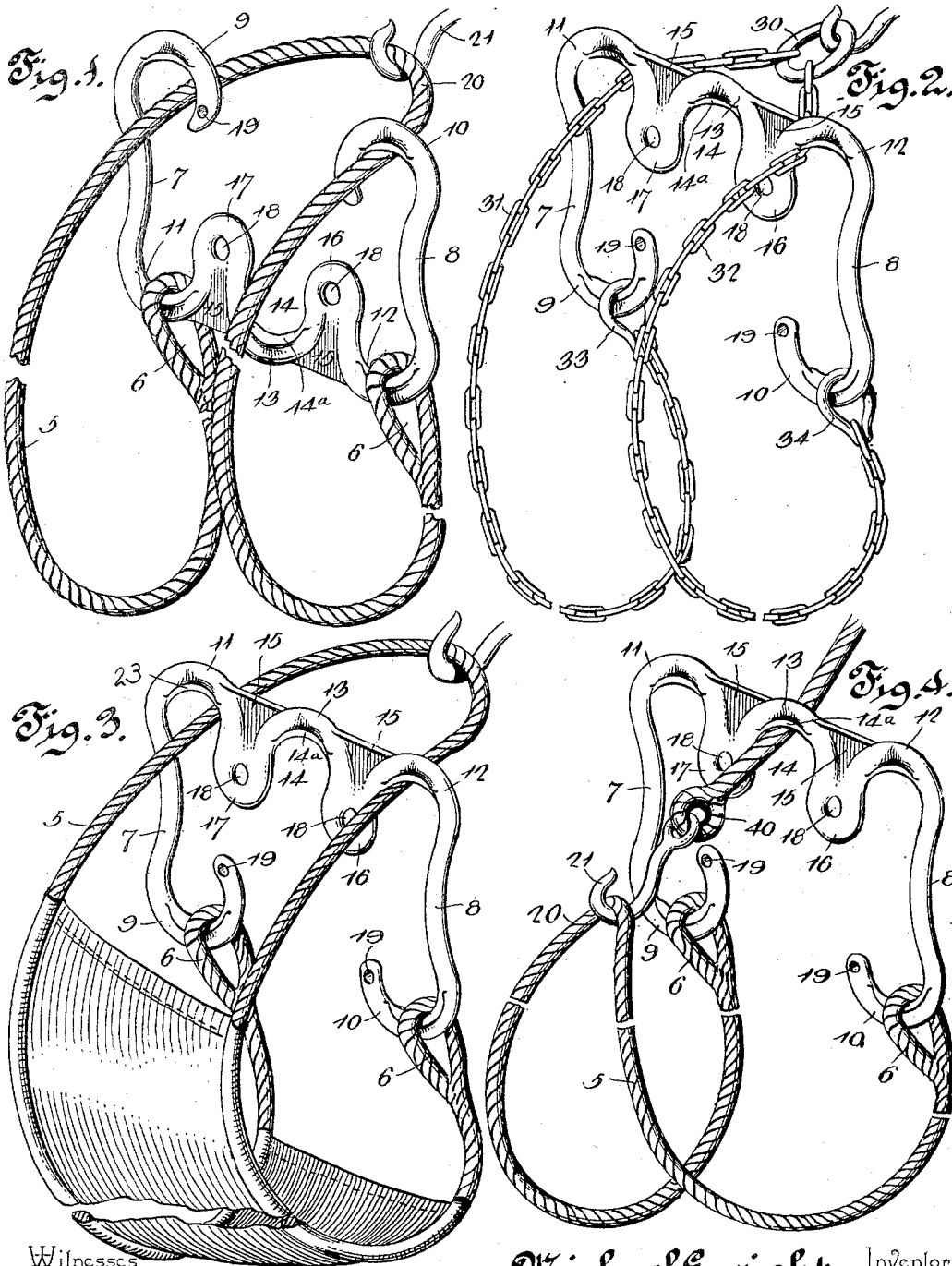
No. 642,214.

Patented Jan. 30, 1900.

**M. ENRIGHT.
CARGO SLING.**

(Application filed Sept. 2, 1899.)

(No Model.)



Witnesses

J. Trautkewerwill.

Georg. Chandler.

By *his*

Michael Enright, Inventor.
Attorneys.

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

MICHAEL ENRIGHT, OF LAMBERT'S POINT, VIRGINIA.

CARGO-SLING.

SPECIFICATION forming part of Letters Patent No. 642,214, dated January 30, 1900.

Application filed September 2, 1899. Serial No. 729,388. (No model.)

To all whom it may concern:

Be it known that I, MICHAEL ENRIGHT, a citizen of the United States, residing at Lambert's Point, in the county of Norfolk and State of Virginia, have invented a new and useful Cargo-Sling, of which the following is a specification.

This invention relates to slings in general, and more particularly to that class known as "cargo-slings;" and it has for its object to provide a flexible portion in the form of a rope or chain and a connecting-hook with which the ends of the flexible portion may be connected, and in the employment of which sling the kinks and turns which occur in the usual endless sling as a result of dampness may be prevented.

A further object of the invention is to provide such a form of hook as will hold the sides of the sling spaced to insure an even gripping of the load, and thus to prevent the loss of any part thereof.

In the usual construction of sling, which consists of a rope having its ends spliced together, the presence of moisture causes the rope to kink and turn, requiring much time in the placing of the sling ready for the load, and when one bight of the sling is passed through the other the kinks prevent ready drawing or slipping of the rope. Furthermore, it is necessary that the ends of the splice be left free to prevent dismemberment of the splice, and in the drawing of the sling this enlargement catches in the bight, causing that side of the sling containing the splice to stop while the other side moves and resulting in an insecure load. Moreover, the bight of the sling is much contracted, due to the load, so that when the cargo-hook is connected with the sling to draw it tight the bight is subjected to great wear, and thus the sling quickly wears out. Moreover, in the employment of a chain sling a single chain only is used, and even if a double chain be used the sections of it in coming together have the effect of only a single chain, and the result is that when the load is drawn along the skids, and which load is always rough—such as pig-iron, &c.—the load tilts from side to side, tearing pieces out of the skids and making the surfaces so rough as to quickly wear out the

rope slings and requiring what is known as "canvas" slings when handling cargo in bags. The roughness of the skids also quickly wears out these canvas slings, and it is very seldom that a rope or canvas sling lasts twenty-four hours.

The present invention eliminates the splice and eliminates the bight through which the rope slips. It effects an even and quick spacing of the ropes of the sling, and when the chain sling is employed double chains may be used, which will be kept evenly spaced, acting as runners for the load, thus saving the wear and tear on the skids and preventing injury to a large extent to the other slings.

In the drawings forming a portion of the specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a perspective view showing a rope sling, including the improved hook. Fig. 2 is a perspective view showing a different arrangement of the hook and including the chain slings. Fig. 3 is a perspective view showing the canvas slings employed with the hook, and Fig. 4 shows the adaptability of the hook to conditions in which the usual sling is not sufficiently long.

Referring now to the drawings, more particularly to Fig. 1, in this application of the invention the sling consists of a single rope 5, having an eye 6 spliced at each end, as distinguished from the usual sling, in which the ends are spliced together, and thus if at any time there be kinks or turns in the rope they may be readily removed. In connection with this sling is employed a hook member comprising two double hooks, including each a stem 7 and 8, having inwardly-directed hooks 9 and 10 at corresponding ends and additional inwardly-directed hooks 11 and 12 at their opposite ends. The material of the bills of the hooks 11 and 12 is continued outwardly and then downwardly and then outwardly to coincide, and results in a formation of a connection 13 between the hooks, in which is formed a recess 14, the bills 11 and 12 in the rear of their extremities being connected with the portion 13 by means of strengthening-webs 15.

Between the recess 14 and the inclosures of the adjacent hooks are projections 16 and 17,

and in these projections are formed perforations 18 for a purpose which will be presently explained. Perforations 19 are formed adjacent the ends of the bills of the hooks 9 and 10.

As shown in the drawings, in this application of the invention an eye 6 is slipped over each hook 11 and 12, after which the sling thus formed is laid in the usual position to receive the load. After the load has been placed upon the sling the bight 20 is passed upwardly and over the load and between the hooks 9 and 10, after which the sides of the sling are passed within the inclosures of the adjacent hooks 9 and 10 and the cargo-hook 21 is fastened to the bight. The fall is then operated and the sling, with its load, is slid along the the skids and lowered into the hold of the vessel. When it is desired to remove the sling, it is only necessary to disengage the hook 21 and the rope of the sling will drop from the hooks. As shown in the drawings, the bearing portions of the hook are provided with outwardly-extending lips 23, which are rounded to prevent wear upon the rope.

Referring now to Fig. 2 of the drawings, there is shown a chain sling comprising a ring 30, to which are connected two chains 31 and 32, having rings 33 and 34 at their opposite ends, and which rings 33 and 34 are shown engaging the hooks 9 and 10, the hook member in this instance being reversed from the position shown in Fig. 1, although it may of course have the same relation to the sling. In this arrangement of the hook members the sling is passed under the connecting portion 13 instead of being dropped between the hooks, as in the former construction. With this arrangement it will be seen that the chains are held evenly spaced, so that they will form runners to insure even hauling of the load over the skid.

In Fig. 3 of the drawings the hook member is shown in the same position as in Fig. 2, and connected with the hooks 9 and 10 thereof are the eyes 6 of the sling, the sling in this instance being what is known as the "canvas" sling and consisting of a section of rope having canvas sewed thereto.

In Fig. 4 of the drawings there is shown a rope sling connected with the hook member in the same manner as shown in Fig. 3 and illustrating the use of the recess 14. This view shows the applicability of the invention to occasions requiring long slings and in which it is necessary to use the end of the cargo-fall to complete the circuit of the load. Under these circumstances the end of the fall 40 is passed through the recess 14 and the hook 21 is engaged with the bight 20. The smoothness of the bearing portion of the connection 13, and which bearing portion is broadened, as at 14^a, prevents wear of the fall and consequent injury.

It will thus be seen that in each instance there is nothing to prevent the ready running of the sling and consequent tightening

upon the load, the wear is reduced to a minimum, and injury to the skid is only slight, the result being that the skids will be free of splinters, requiring less use of the canvas slings and resulting in less injury to the slings themselves. Also it will be seen that if at any time turns or kinks are in the sling the eyes may be removed from the hooks and they may be removed.

In order to prevent accidental displacement of the eyes from the hooks, a piece of marlin may be passed through the proper perforations 18 and passed across the hooks to close them.

Furthermore, it will be understood that in the manufacture of the hook member it may be made of any desired material and may have any proportions and size and that the specific shape and outline shown may be varied without departing from the spirit of the invention.

Having thus described the invention, what I claim is—

1. A cargo-sling comprising a flexible member having eyes in its ends and a hook member comprising two hooks adapted for engagement with the eyes, said hooks lying mutually adjacent and having a mutual connection having bearing-surfaces to receive the flexible member.

2. A cargo-sling comprising a flexible member and a hook member adapted for engagement with the flexible member and comprising two hooks lying mutually adjacent and having a mutual fixed connection having a bearing-surface to receive the flexible member in a direction transversely of the plane of the hooks.

3. A cargo-sling comprising a hook member including two inwardly-directed hooks adapted to receive the eyes of a flexible member and having a mutual connection provided with a bearing-surface adapted to receive the sides of the flexible member in a direction transversely of the common plane of the hooks, to form a loop.

4. A cargo-sling comprising a hook member including two double hooks having a mutual connection attached thereto exteriorly of the inclosure of the hooks, whereby said hooks may interchangeably receive a flexible member.

5. A cargo-sling comprising a hook member including two double hooks connected at one end exteriorly of the inclosure of the hooks, whereby said hooks may interchangeably receive a flexible member.

6. A cargo-sling comprising a hook member including two hooks arranged mutually adjacent in a common plane and having a connection provided with a transverse bearing-surface adapted to receive a sling when the latter is engaged with the hooks.

7. A cargo-sling comprising two double hooks arranged mutually adjacent and having a mutual connection provided with bearing-surfaces, said connection being attached

to the hooks exteriorly of the inclosures thereof, whereby they may interchangeably receive a flexible member.

5 8. A cargo-sling comprising a hook member including two hooks having a mutual connection, and a recessed bearing-surface in one face of said connection adapted to receive a sling when the latter is engaged with the hooks.

10 9. A cargo-sling comprising a hook member including two hooks arranged mutually adjacent and having a mutual connection, said hooks being adapted to receive the eyes at the ends of the flexible member, and a bearing-surface upon the connection adapted to receive the side of said flexible connection passed transversely of the common plane of the hooks to form a loop, said bearing-surface being accessible from between the hooks.

20 10. A cargo-sling comprising two double hooks arranged mutually adjacent and having a mutual connection, said hooks being adapted to receive interchangeably at their opposite ends the eyes of a flexible member,

and a bearing-recess in the connection between the hooks adapted to receive the sides of the flexible member in a direction transversely of the common plane of the hooks, said connection being fixed to the hook members exteriorly of the inclosures thereof. 25 30

11. A cargo-sling comprising a hook member including two double inwardly-directed hooks and having a fixed connection attached thereto exteriorly of the inclosures of the hooks, said hooks being adapted to interchangeably receive the eyes of the flexible member, and a bearing-recess in the connection adapted to receive the flexible member when passed in a direction transversely of the plane of the hooks. 35 40

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

MICHAEL ENRIGHT.

Witnesses:

A. B. FELDNER,
F. C. MILLER.