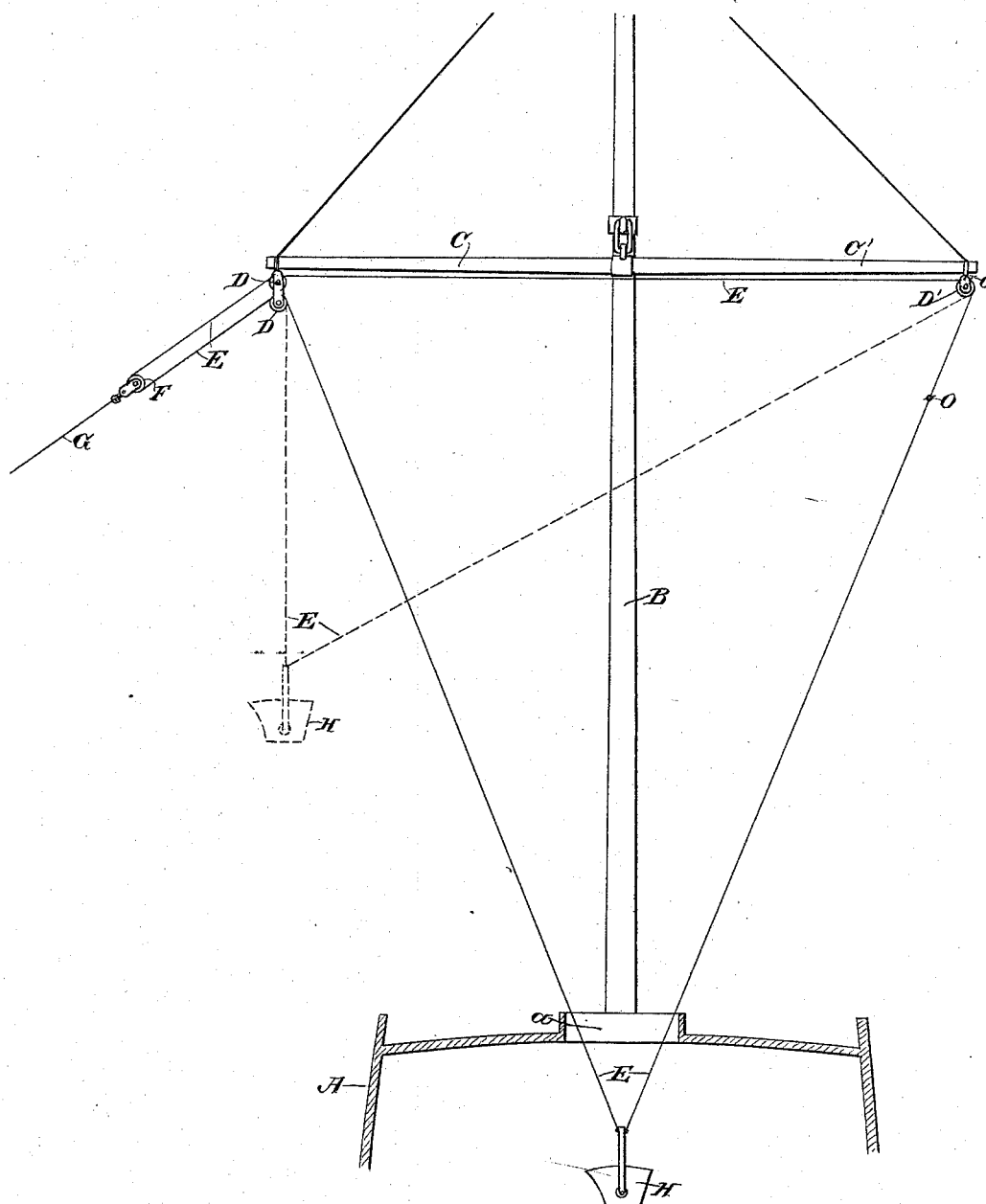


L. ROSENFELD.
HOISTING APPARATUS.

Patented Sept. 18, 1894.



Witnesses,
St Anne
H. F. Oscheck

Inventor,
Louis Rosenfeld
By Dewey & Co. *W. H. P.*

UNITED STATES PATENT OFFICE.

LOUIS ROSENFELD, OF NEW YORK, N. Y.

HOISTING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 526,263, dated September 18, 1894.

Application filed May 10, 1894. Serial No. 510,785. (No model.)

To all whom it may concern:

Be it known that I, LOUIS ROSENFELD, a citizen of the United States, residing in the city and county of New York, State of New York, have invented an Improvement in Hoisting Apparatus; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to that class of hoisting devices in which the hoisting rope or runner lifts the suspended load vertically, a distance sufficient to allow it to clear the hatch or other wall or casing surrounding the material, or in which the latter is confined, said load being then pulled or guided sidewise or out-board, by means of attached lines manipulated by hand.

My invention consists of the constructions and combinations of devices which I shall hereinafter fully describe and claim.

The object of my invention is to provide simple and effective means for hoisting the load preliminarily to clear its immediate surroundings, and then for automatically and by the same continuous movement of the hoisting power and devices, hoisting it out-board or sidewise to the point at which it can be lowered away, or dumped of its load.

Referring to the accompanying drawing for a more complete explanation of my invention,—the figure is a general view of my apparatus, the dotted lines showing the second position of the bucket.

A represents any suitable receptacle or place in which the material to be hoisted is confined or lies. For the sake of example it may be considered a vessel's hold, and the opening *a* may be regarded as the hatch.

B is a suitable upright support, standard, or mast from which, above, extend on each side, the arms or gaffs or yards C and C', the former being on the left of the drawing, and the latter on the right thereof. At the extremity of arm C are the guides or blocks D, and at the extremity of arm C' is the guide or block D'.

E is the hoisting rope or cable. In its bight is a hauling block F to which the line G, extending to the hoisting engine (unnecessary herein to show) is secured. From block F the rope or cable E extends over one of the guides or blocks D and thence down and its

end is secured to the tub or bucket H. It also extends from guide or block F to and over the other guide or block D, thence to and over the guide or block D', and thence down to the tub or bucket H, to which its other end is secured. At any suitable point in either side or portion of rope E, preferably in that portion of said rope which lies between the bucket or tub and the extremity of either arm, gaff or yard, I place any kind of an obstruction O, which will not pass the guide or block in said arm, gaff, or yard, or which, by contact with any fixed part, will stop the movement of said rope. This obstruction may be of any character, such as a strong cross piece, or simpler still, a knot in the rope will answer.

The operation is as follows: By hauling in on the engine line G, the block F will haul in both sides of rope or cable E, and as the guides or blocks D and D' are equidistant from the vertical center of the support, standard or mast B, and the winding up of the rope or cable E is equal on each side, the tub or bucket will rise vertically, and this continues until the hatch is cleared and such height, as may be desired, is gained. Then the obstruction O, coming in contact with guide or block D', arrests the further hauling in of that side of the cable or rope; but as the other side is still free and being hauled in, the tub or bucket rises diagonally in the direction of the extremity of arm or gaff C, and its speed is, of course, doubled, because of the stoppage of the obstructed side of the rope or cable. This continues until sufficient siding is gained, to lower away, or dump the load. This whole operation is automatic and continuous, and by the use of an apparatus of this kind, the services of men usually employed to manipulate the side directing lines, are dispensed with. By placing the obstruction at different points with relation to the place at which it will be arrested, the amount of vertical hoist of the load may be accurately determined to suit circumstances, and as little or as great perpendicular movement may be given, before swinging out-board, as may be desired, according to the surroundings. The tub or bucket is returned to the vessel's hold by a reverse movement of the parts, or in any suitable manner. After the said bucket or

tub has been relieved of its load, a pull upon the hoisting rope or cable will elevate it to the desired distance to clear the vessel's side when the rope is slackened to permit the tub
5 or bucket to descend and swing inward, and be directed in any well known manner into the hold of the vessel.

Having thus described my invention, what I claim as new, and desire to secure by Letters
10 Patent, is—

1. A hoisting apparatus consisting of a suitable support provided with guides located one on each side of its vertical center, a doubled hoisting rope or cable directed from its
15 bight to and by said guides and having its ends attached to the load receptacle, said rope or cable having in one of its sides an obstruction adapted to arrest the movement of said side at a predetermined point while the other
20 side is still moving, and a hauling block in

which the bight of said rope or cable freely runs, substantially as herein described.

2. A hoisting apparatus consisting of a central support, arms, yards or gaffs extending therefrom on each side, guide blocks carried
25 by the arms, yards or gaffs at points equidistant on each side of the central support, a doubled hoisting cable or rope directed by the guide blocks and connected with the load receptacle, said cable or rope having an ob-
30 struction in one of its sides to arrest the movement of said side at a predetermined point, and a hauling block fitted to the bight of said rope or cable, substantially as described.

In witness whereof I have hereunto set my
35 hand.

LOUIS ROSENFELD.

Witnesses:

S. H. NOURSE,

H. F. ASCHECK.