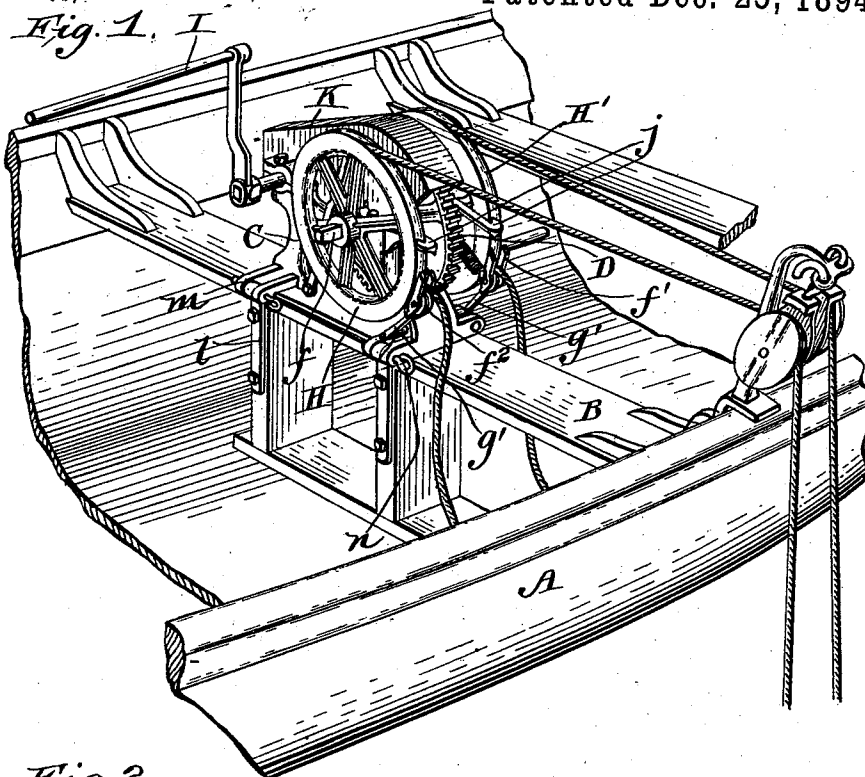


(No Model.)

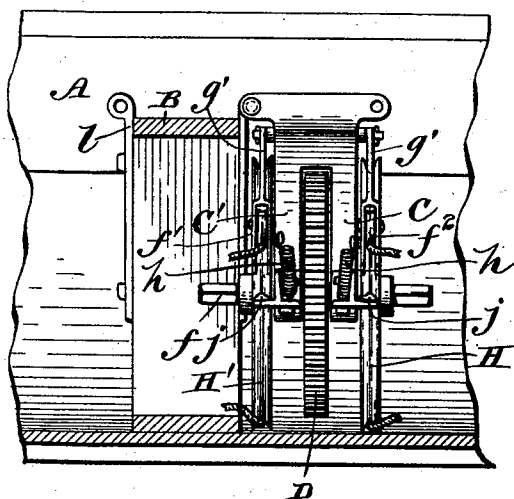
W. B. LANTZ.  
ROPE HAULING MACHINE.

No. 531,318.

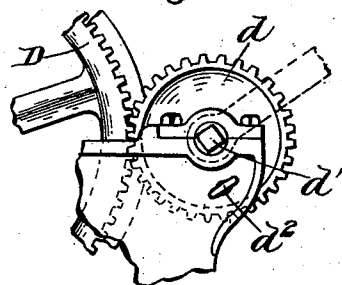
Patented Dec. 25, 1894.



*Fig. 2.*



*Fig. 3.*



Witnesses  
Everance  
John E. Smith

Inventor  
William B. Lantz  
Maurice Lawrence  
his Attorneys

# UNITED STATES PATENT OFFICE.

WILLIAM B. LANTZ, OF GLOUCESTER, MASSACHUSETTS.

## ROPE-HAULING MACHINE.

SPECIFICATION forming part of Letters Patent No. 531,318, dated December 25, 1894.

Application filed August 14, 1894. Serial No. 520,297. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM B. LANTZ, a citizen of the United States, residing at Gloucester, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Rope-Hauling Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in rope hauling machines and has more particularly to do with the class of machines that are employed for hauling the purse lines of seines and for that purpose are mounted in a boat or like floating body.

The invention consists in the combination with a framework of operating gearing mounted on each side of the gearing and operated thereby, improved means for retaining the ropes being hauled in said grooves and means for locking the gearing.

It also consists in providing such a machine with double separable hinges by which it is removably attached to the boat but may be turned into the bottom of the same on either side of the seat by separating the hinges on one side and turning the machine down on the opposite side.

It also consists in certain other constructions, combinations and arrangements of parts as will hereinafter be more particularly set forth and claimed.

In the accompanying drawings: Figure 1. is a perspective view, partly broken away, of a boat containing my rope hauling machine attached to the seat thereof. Fig. 2. is a detail section through the boat and end elevation of the hauling machine turned down into the bottom of the boat, and Fig. 3. is a detail side elevation of the two gears showing the pin for locking the same.

A, in the drawings, is the boat; B, the seat thereof; C, the frame of the hauling machine; D, the large gear wheel mounted in said frame and H, H' the grooved rope hauling wheels mounted on the arbor of the gear wheel.

The gear or toothed wheel D is mounted between two upwardly extending standards c, c' of the frame C and upon an arbor f.

This arbor extends through bearings in said standards c, c' and carries, on each end, one of the grooved rope hauling wheels H, H'. These wheels are provided about their peripheries with V-shaped grooves into which the purse lines pass from any suitable crane supported tackle mounted on the edge of the boat. The ropes pass over the tops of said wheels and are held about the same by spring pressed sheaves f<sup>2</sup> pivoted to the frame. These sheaves are each supported by a pivoted bar g' bifurcated at its outer end to form a yoke f' in the bottom of which the said sheave f<sup>2</sup> is journaled. Springs h are connected respectively to the bars g' and to the frame and the sheaves f<sup>2</sup> are thus drawn tightly against the rope and hold it firmly in the V-grooves.

Just in the rear of the gear wheel D and meshing therewith is mounted another and smaller gear d by means of an arbor d' mounted in the frame. Both the arbors f and d' are squared at each end so that crank handles I can be attached to either, to operate the devices. If applied to the arbor d' great power is gained but with a loss of speed. If applied to the arbor f more speed is secured but the power is decreased.

Two fingers j, j, are attached to the frame so as to enter the V-grooves of the wheels H, H' just above the sheaves f<sup>2</sup> and thus remove the rope if it should stick in said grooves, and cause it to drop into the bottom of the boat; the rope being guided in dropping by the yokes f' of the bars g'.

The gear d is provided near its periphery with an aperture which is adapted to coincide with apertures cut in the frame so that a locking key d<sup>2</sup> can be slipped through all of said apertures when they coincide and thus lock the gear d and consequently all the rest of the mechanism.

A protecting cover or housing K, composed preferably of wooden sides and metal top is attached to the frame so as to protect the gears and prevent anything from becoming entangled in them.

At each end of each side of the base of the frame are projecting apertured lugs m formed in pairs and these with the headed apertured shanks l adapted to be attached to the vertical partitions or supports under the seat, constitute the hinges; each apertured head

being adapted to be removably secured between its respective pair of lugs by pins *n* which are passed through the lugs and said heads.

5 By having the grooved wheels H, H' well apart there is no danger of the purse lines becoming entangled or jumping from one grooved wheel to the other but in the event of their becoming entangled or crossed they  
10 can be readily shifted from one wheel to the other if necessary or one rope detached and the other drawn in alone and I regard the above as an important feature of my invention.

15 It will be observed that by having standards at both sides of the gear wheel and the grooved rope hauling wheels mounted outside of these standards on each side, that the strain comes equally on both sides of the machine and the same is thereby prevented from  
20 canting to one side.

When it is desired to stow the machine away in the bottom of the boat after using, the pins *n* on either side of the seat are removed and the machine tipped in the opposite direction until it rests upon the bottom  
25 of the boat but is supported by its hinges, as shown in Fig. 2.

What I claim as my invention is—

30 1. In a rope hauling machine, the combination of a framework, centrally arranged operating gearing mounted upon the same,

grooved rope hauling wheels mounted on each side of the gearing and operated thereby, rope pressing sheaves, pivoted supporting  
35 bars having bifurcated ends in which the sheaves are journaled, springs connected to said pivoted bars and the frame whereby the sheaves are pressed against the rope on the grooved drums or wheels, which causes the  
40 rope to pass almost completely around said wheels and retains the ropes being hauled in said grooves; said bifurcated bars guiding the ropes as they pass from the wheels, and a pin for locking the gearing, substantially as  
45 described.

2. In combination with the seat of a boat, a rope hauling machine removably secured at its opposite sides by separable hinges consisting of spaced apertured lugs located on  
50 the frame, apertured shanks secured to the seat supports and adapted to engage the apertured lugs, and removable pins passed through the lugs and shanks whereby the machine may be removed entirely from the  
55 support or turned down on either side of said support, substantially as described.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

WILLIAM B. LANTZ.

Witnesses:

C. E. FISHER,

GEO. E. MERCHANT.