

972,895.

G. V. MITCHELL.
HAWSER SECURING DEVICE FOR SCOWS.
APPLICATION FILED FEB. 25, 1910.

Patented Oct. 18, 1910.
2 SHEETS—SHEET 1.

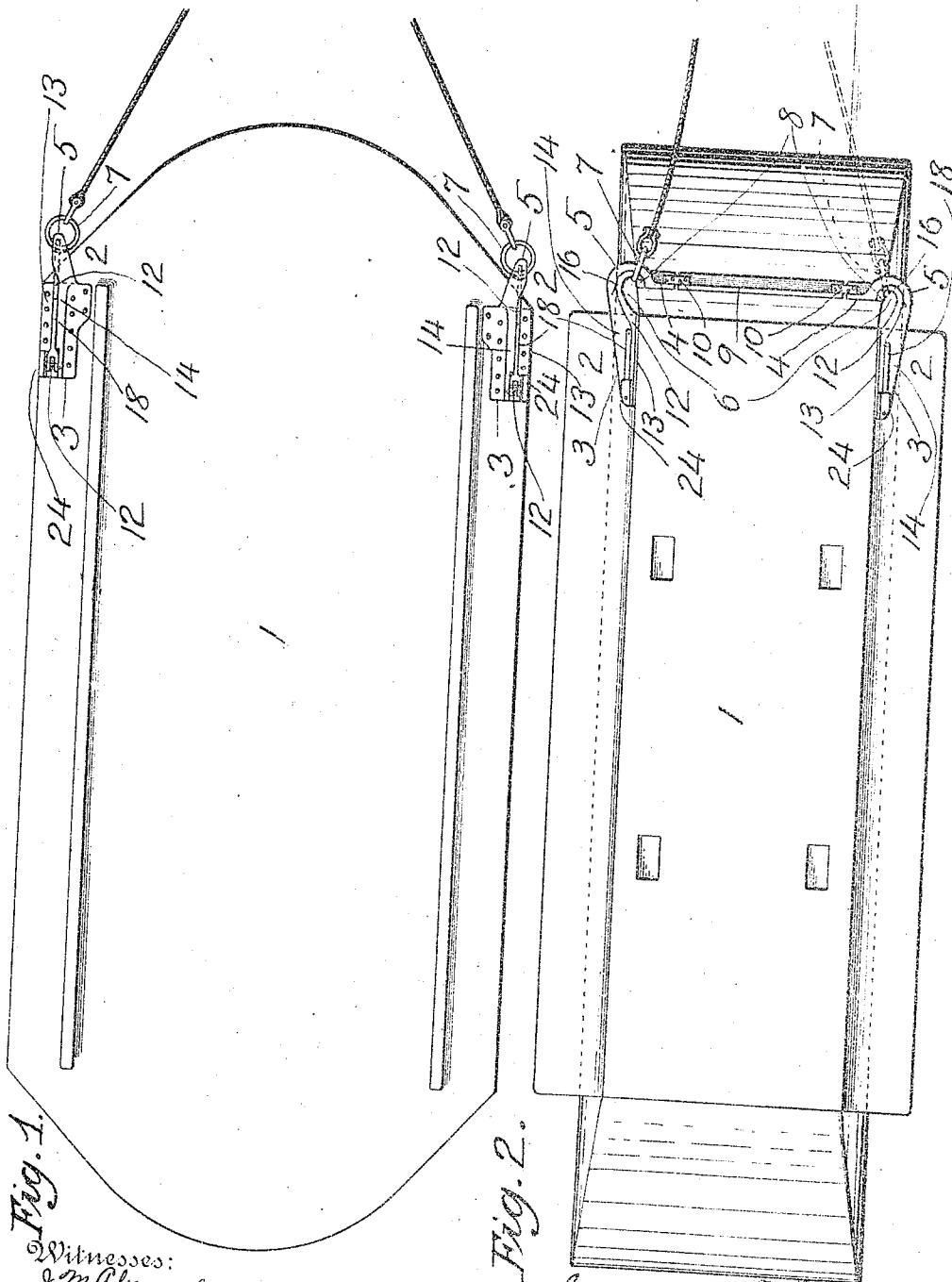


Fig. 1.

Witnesses:
J. M. Abrams.
J. C. Longstreet

Fig. 2.

Inventor
Garrett V. Mitchell.
By his Attorneys.
Blackwood Bros

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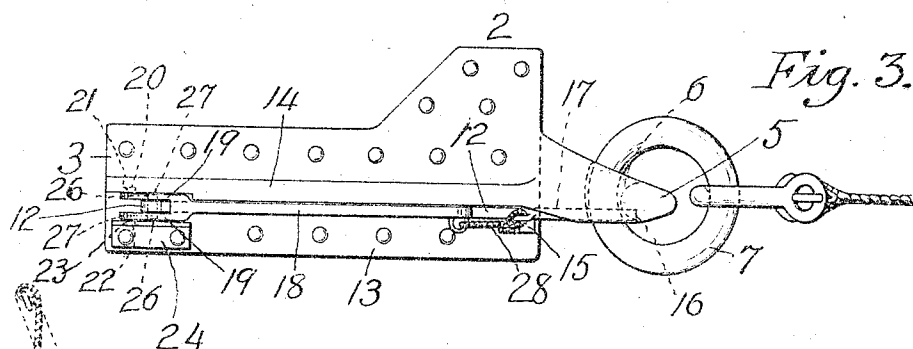


Fig. 3.

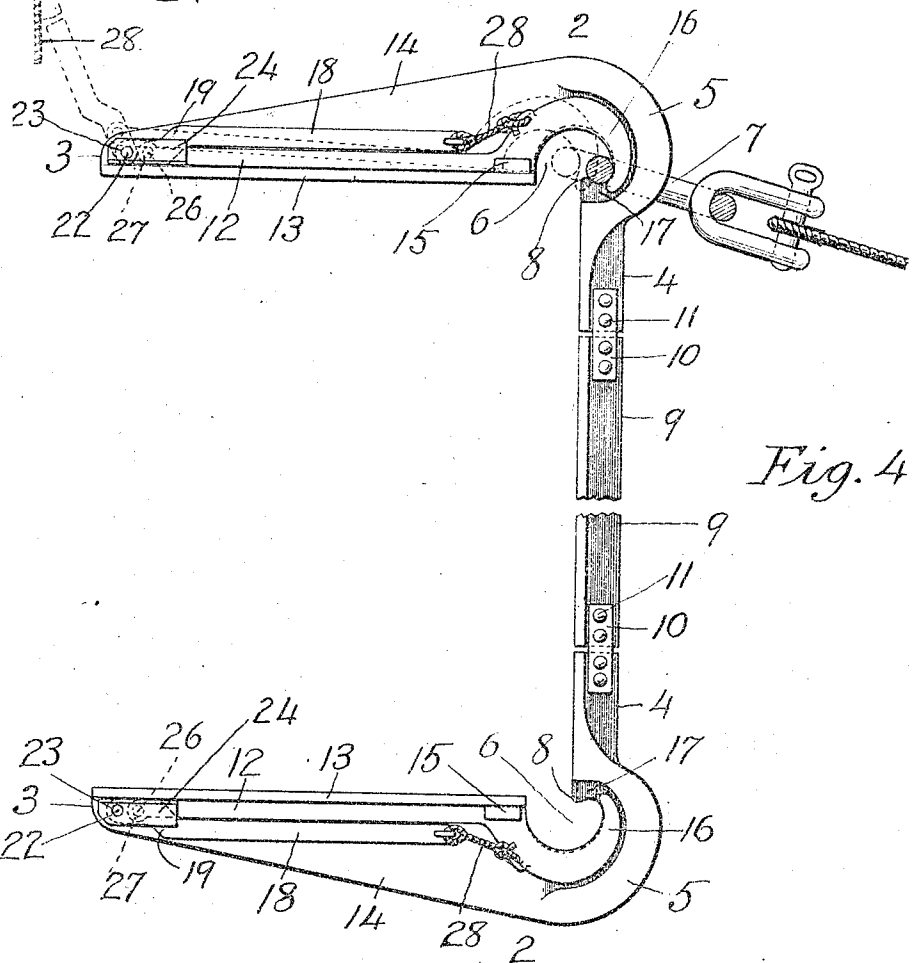


Fig. 4.

Witnesses:
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UNITED STATES PATENT OFFICE.

GARRETT V. MITCHELL, OF BAYONNE, NEW JERSEY.

HAWSER-SECURING DEVICE FOR SCOWS.

972,895.

Specification of Letters Patent.

Patented Oct. 18, 1910.

Application filed February 25, 1910. Serial No. 545,851.

To all whom it may concern:

Be it known that I, GARRETT V. MITCHELL, a citizen of the United States, residing at Bayonne, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Hawser-Securing Devices for Scows, of which the following is a specification.

My invention relates to improvements in hawser securing devices for scows, particularly for rotatable scows having interchangeable decks such as that forming the subject of my co-pending application filed concurrently herewith.

It has for its object to provide a securing device for the purpose above set forth adapted to be secured to the fore end of a scow and having means at each end adapted to be engaged by a hawser, whereby the hawser is adapted to be primarily held adjacent the uppermost deck of the scow and be disengaged therefrom, preparatory to the scow being rotated to discharge its load, allowing the hawser to drop by gravity and engage the lower means for its engagement, by which arrangement the hawser will always extend from the deck which is uppermost.

It has for a further object to provide means for disengaging the hawser from the upper means for its engagement.

It has for a further object to provide means for operating the means for disengaging the hawser.

It has for a further object to provide means for guiding the hawser in its travel from the upper means for its engagement to the lower means therefor.

In the drawings illustrating my invention: Figure 1 is a plan view of a rotatable scow having my hawser securing device applied thereto. Fig. 2, a side view thereof. Fig. 3, a plan view on an enlarged scale, of one of my securing devices removed. Fig. 4, a side view thereof.

Referring to the drawings in which like reference characters designate corresponding parts, I have illustrated the securing device forming the subject of this application, applied to a rotary scow 1, viz: that forming the subject of my co-pending application above referred to, in order to give a clear understanding of its application and operation, two of these securing devices being required on the fore end of the scow,

one adjacent each side, to secure the ends of a bridle hawser thereto.

My hawser securing device which is constructed of metal, consists of straps 2 having long arms 3 secured to opposite decks of the scow in alinement with each other, a short arm 4 at substantially right angles thereto and spaced from the end of the scow and an arched corner 5 provided with an inwardly opening recess 6 adapted to be engaged by a ring 7 of a hawser and a lug 8 extending into said recess from the short arm and being adapted to engage the outer circumference of the hawser ring and prevent it from accidentally slipping out of the recess, but permitting it to be easily and readily disengaged therefrom to allow it to fall by gravity into the recess of the lower strap preparatory to rotating the scow to discharge its load and interchange its decks so as to have the hawser always extend from the deck of the scow which is uppermost.

The ends of the short arms 4 which are T shaped in transverse cross-section, are joined to the opposite ends of a T bar 9 by plates 10 secured by rivets 11 and said bar serves to guide the hawser ring in its gravitating movement.

A slidable bar 12, for disengaging the hawser ring from the lug in the recess, is seated on the outer flange 13 of the arm 3, between a longitudinal rib 14 and a lug 15 and is guided thereby. At its forward end the bar 12 is provided with a hook 16 located in a lateral depression 17 which prevents the bar from dropping downward when the ends of the hawser securing device are interchanged by reason of the rotation of the scow and the end of the hook 16 engages the inner circumference of the hawser ring when it is in the recess and when the bar is slid forward disengages the hawser ring from the lug 8 and moves it out of the upper recess, allowing it to fall by gravity into the recess of the other strap.

A lever 18 for sliding the bar 12 rests on top of said bar and is provided at its rear end with forks 19, one having a journal 20 mounted in a bearing 21 in the rib 14 of the arm 3, and the other a journal 22 mounted in a bearing 23 in a plate 24, bolted to the outer flange 13 and the rear end of the slidable bar 12 is fulcrumed between the forks of the lever 18 on journal 26 mounted in bearings 27 in said forks forward of the fulcrum of the

lever 18. By this arrangement of the lever 18 and the bar 12, when the lever is raised the bar will be slid backward causing the hook on its forward end to disengage the hawser ring from the lug 8 and move it out of the recess in the upper strap, allowing it to fall by gravity into the recess in the lower strap.

To prevent the lever 18 at the lower end of the hawser securing device from dropping down, it is secured just previous to the scow being rotated to discharge its load, by means of a rope 28, one end of which is permanently secured to the forward end of the lever 18 and the other end temporarily secured to the forward end of the bar 12.

The operation is as follows: When it is desired to discharge the load from the scow, the hawser is slightly slackened and the lever 18 at the upper end of the securing device is pulled upward which causes the bar 12 to be slid backward and move its hook partially out of the depression 17 and as the end of its hook 16 is in engagement with the hawser ring, said ring is disengaged from the lug 8 and moved out of the recess 6, thus allowing it to fall by gravity into the recess 6 in the strap at the lower end of the securing device, whereupon the scow is caused to rotate so as to discharge its load, interchange its decks and the hawser will extend from the uppermost deck.

I claim:

1. A hawser securing device for rotatable scows, having reversible decks, said device having means adjacent each deck adapted to be engaged by the hawser, means adapted to positively support said hawser in elevated position, means adapted to guide the hawser from one to the other of said first mentioned means and means for positively disengaging the hawser from the first mentioned means, substantially as described.

2. A hawser securing device for rotatable scows, having reversible decks, said device having means provided with recesses adapted to be engaged by the hawser, lugs adjacent the entrance to said recesses normally retaining said hawser therein, means adapted to guide the hawser from the recess in one into the recess in the other of the first mentioned means and means for positively disengaging the hawser from the lugs and recesses, substantially as described.

3. A hawser securing device for rotatable scows, having reversible decks, said device having means provided with recesses adapted to be engaged by the hawser, lugs adjacent the entrance to said recesses normally retaining said hawser therein, means adapted to guide the hawser in its movement from the recess in one into the recess in the other of the first mentioned means, bars adapted to be operated to disengage the hawser from the lugs and recesses and levers adapted to operate said bars, substantially as described.

4. A hawser securing device for rotatable scows, having reversible decks, said device having means provided with recesses adapted to be engaged by the hawser, lugs adjacent the entrance to said recesses normally retaining said hawser therein, means adapted to guide the hawser in its movement from the recess in one into the recess in the other of the first mentioned means, hooked bars adapted to be operated to disengage the hawser from the lugs and recesses, and means adapted to operate said bars, substantially as described.

5. A hawser securing device for rotatable scows, having reversible decks, means provided with recesses adapted to be engaged by the hawser, means adapted to guide the hawser from the recess in one into the recess in the other of the first mentioned means, bars adapted to be operated to disengage the hawser from said recesses and fulcrumed levers, on which said bars are fulcrumed, adapted to operate said bars, substantially as described.

6. A hawser securing device for rotatable scows, having reversible decks, means provided with recesses adapted to be engaged by the hawser, means adapted to guide the hawser in its movement from the recess in one into the recess in the other of the first mentioned means, hooked bars adapted to be operated to disengage the hawser from said recesses and fulcrumed levers, on which said bars are fulcrumed, adapted to operate said bars, substantially as described.

In testimony whereof I have signed my name in the presence of two subscribing witnesses.

GARRETT V. MITCHELL.

Witnesses:

R. M. LEPPER,
J. M. ABRAMS.