

M. DUBRULE & N. DOE.
SHIP'S LANDING LADDER.
APPLICATION FILED MAY 6, 1913.

Patented Jan. 5, 1915.

2 SHEETS—SHEET 1.

1,124,115.

Fig. 1.

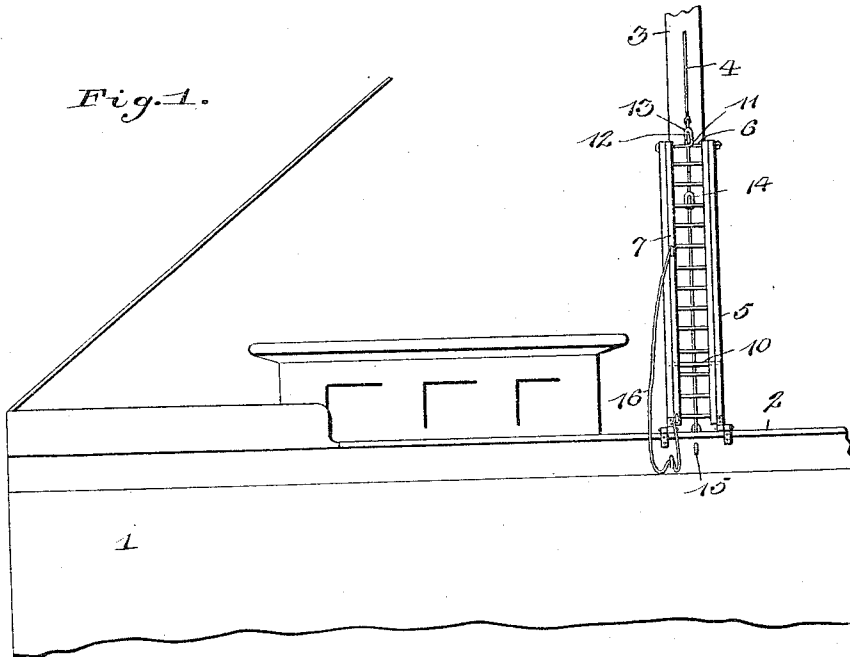


Fig. 3.

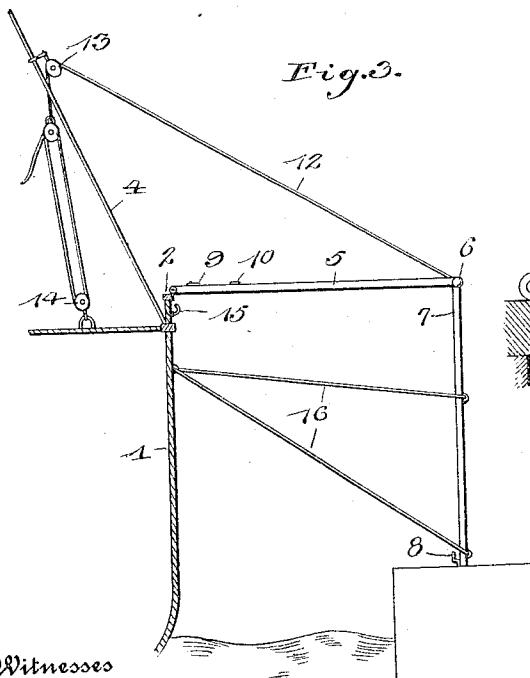
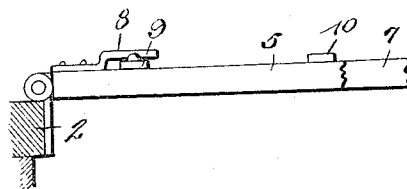


Fig. 6.



Witnesses

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2 SHEETS-SHEET 2.

Fig. 2.

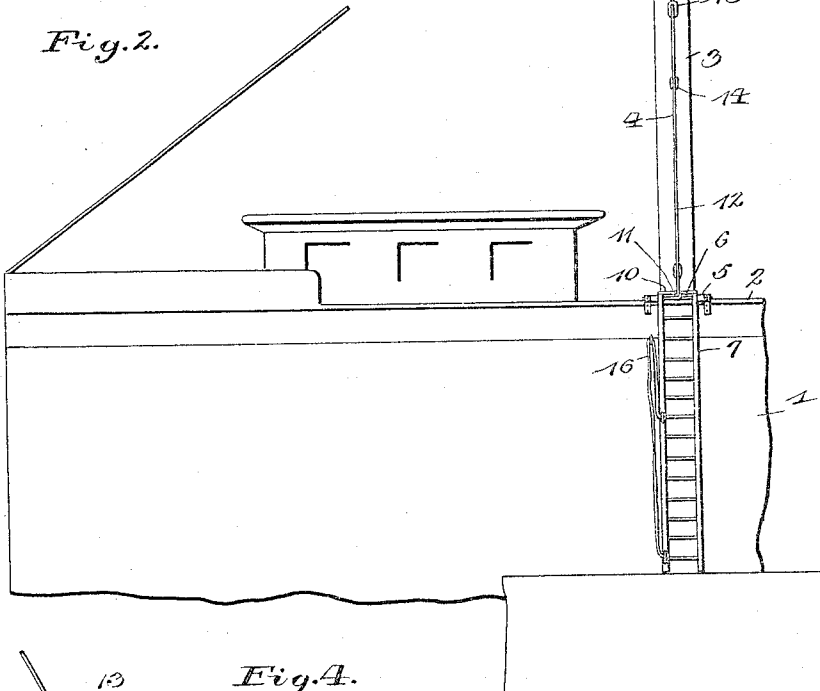


Fig. 4.

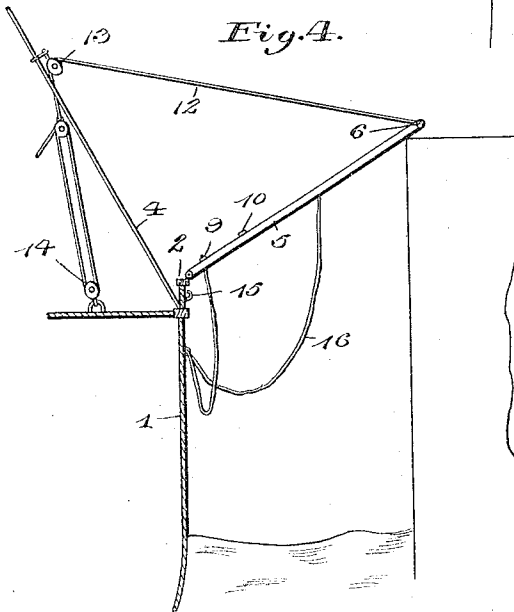
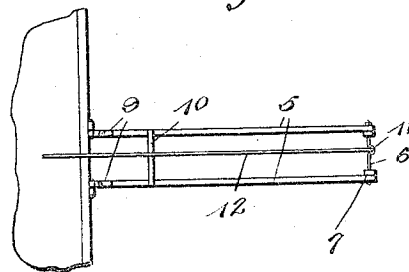


Fig. 5.



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UNITED STATES PATENT OFFICE.

MARCIEN DUBRULE AND NELSON DOE, OF OGDENSBURG, NEW YORK.

SHIP'S LANDING-LADDER.

1,124,115.

Specification of Letters Patent.

Patented Jan. 5, 1915.

Application filed May 6, 1913. Serial No. 765,830.

To all whom it may concern:

Be it known that we, MARCIEN DUBRULE and NELSON DOE, citizens of the United States, residing at Ogdensburg, in the county of St. Lawrence and State of New York, have invented new and useful Improvements in Ships' Landing-Ladders, of which the following is a specification.

This invention relates to raising and lowering devices.

The principal object of the invention is to provide a device particularly adaptable for use in connection with canal boats which will permit the lowering of a man to shore to take the lines from the boat to the snubbing posts or to take him aboard the boat after the lines have been released or cast off.

In canal boating or other similar maritime pursuits where frequent landings are necessary the master has to provide a hand to handle the lines at the locks or docks. In going upstream into a lock it is necessary for the man to climb up onto the bridge and jump off onto the lock or dock. In going into a lock or to a dock that is lower than the deck of the ship it is necessary for the linesman to jump from the deck of the ship to the dock or lock and it is frequently the case that the men are crushed to death between the sides of the ship and the lock. Again when the steamer is leaving the dock or lock there is no one there to cast off the lines and they have to send a man ashore for this purpose. After casting off the man has to climb up a rope or remain on the dock and lose his boat. Frequently it is necessary for him to walk from one lock to the other.

It is the object of this invention to avoid all these difficulties and broadly speaking the invention consists in providing a ladder adjustably connected to the boat in such manner that it may be raised or lowered for engagement with a dock or lock wall higher than the deck of the boat or lower than the deck of the boat and sufficiently far out to eliminate the necessity of crowding the ship against the lock walls.

Further objects of the invention will appear as the following description is read in connection with the accompanying drawings, which form a part of this application and in which:—

Figure 1 is a detail side elevation of the ship showing the ladder held in inoperative position. Fig. 2 is a similar view showing

the ladder in operative position. Fig. 3 is a sectional view through the ship showing the ladder arranged for a landing upon a dock lower than the ship's deck. Fig. 4 is a similar view showing the ladder arranged for a landing higher than the ship's deck. Fig. 5 is a detail top plan view with the ladder in the position shown in Fig. 3. Fig. 6 is an enlarged detail elevation showing the method of holding the free end of the ladder against out board or in board swinging.

Referring more particularly to the drawing, 1 represents an ordinary ship, 2 the rail thereof, 3 the mast and 4 the mast stays.

Pivotaly mounted upon the rail is a pair of arms 5 arranged in separated relation and in parallelism and having connected to their outer ends by means of the pivotal bolt 6 the side bars of a ladder 7.

The lower end of the ladder is provided with a pair of hooks 8 secured to the side bars 7 adapted to be engaged by turn buttons 9 pivoted upon the arms 5 so as to lock the ladder against out board swinging.

A cross bar 10 extending between the arms limits the inward movement of the ladder, as will be readily understood, and at the same time holds the arms in spaced relation. The bolt 6 is provided with an eye 11 in its center to which is connected a cable or rope 12 passing over a pulley 13 and connected to the falls 14 which in turn have their lower block secured to a suitable eye in the deck of the vessel or to any suitable device carried by the rail. The cable 12 is preferably removably connected to the upper block of the falls so that it may be operated independently of the same and connected to a hook 15 secured to the rail.

Suitable guy wires or ropes 16 connect the ladder with the side of the ship and extend diagonally so as to prevent movement of the ladder in a direction longitudinally of the ship and thereby placing a torsional strain upon the arms. These cables or ropes 16 may be connected in any suitable manner to the ladder so that the out board swinging of the ladder may be adjusted when in the position shown in Fig. 3.

In operating the device for lowering a man onto a dock lower than the ship's deck the linesman steps upon the ladder, releasing the turn buttons 9 and a second man upon the deck operates the block and falls so as to lower the ladder into the position shown. After the lines have been applied to

the snubbing post or cast off therefrom a man may readily step upon the ladder to be raised to the deck again.

When the ladder is to be used as shown in 5 Fig. 4 the buttons are left connected with the hooks 8 and the ladder lowered to the position shown in Fig. 4 so that the man can climb to the top and step off onto the dock or lock wall. The manipulation of the 10 cable either by the falls or by hand will raise or lower the arms 5 and if the buttons are locked the ladder will remain in parallelism with the arms, whereas if the buttons are released the ladder will gravitate to a 15 vertical position and be limited in its outward swinging by the cables or ropes 16.

What is claimed is:—

A device of the class described, comprising a pair of spaced parallel supporting 20 arms pivoted at one end to a support, a lad-

der pivoted to swing between the free outer ends of said supporting arms, means for preventing the ladder from swinging in one direction beyond the arms, flexible means for limiting the movement of the ladder in 25 the opposite direction, hooks carried adjacent the free end of said ladder, turn buttons carried by the supporting arms for engaging the hook to lock the ladder to the supporting arms and in the same plane with the sup- 30 porting arms, and means to raise and lower the free outer ends of the supporting arms.

In testimony whereof we affix our signatures in presence of two witnesses.

MARCIEN DUBRULE.
NELSON DOE.

Witnesses:

JOHN M. BARR,
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."