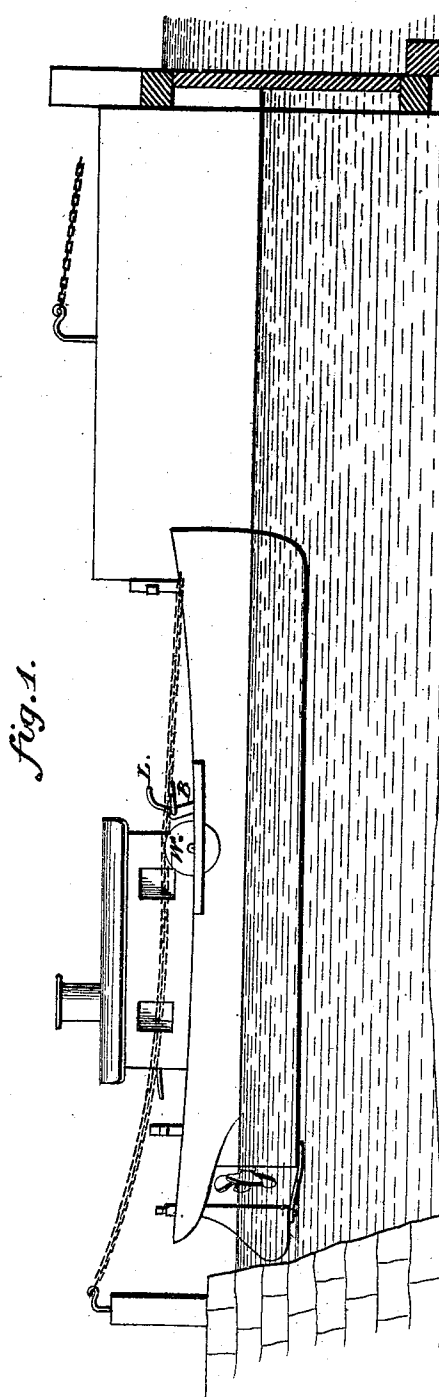
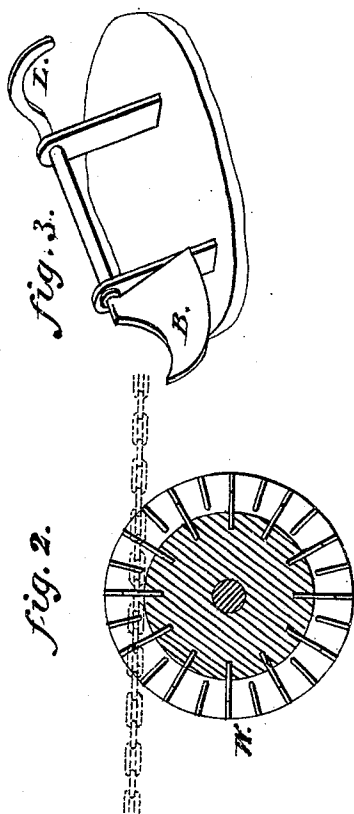


J. H. WYGANT, C. PRESTON & C. J. WESTERVELT.
Disengaging Towing Apparatus of Boats.
 No. 143,050.

Patented September 23, 1873.



Attest,
 Wm. W. Harper
 Clerk J. Westervelt

Inventor,
 John Henry Wygant
 Christopher Preston
 Casper C. Westervelt

UNITED STATES PATENT OFFICE.

JOHN H. WYGANT, CHRISTOPHER PRESTON, AND CASPER J. WESTERVELT,
OF HACKENSACK, NEW JERSEY.

IMPROVEMENT IN DISENGAGING TOWING APPARATUS FOR BOATS.

Specification forming part of Letters Patent No. **143,050**, dated September 23, 1873; application filed February 28, 1873.

To all whom it may concern:

Be it known that we, JOHN H. WYGANT, CHRISTOPHER PRESTON, and CASPER J. WESTERVELT, all of Hackensack, New Jersey, have invented an Improvement in Propelling Canal-Boats, of which the following is a specification:

Our invention relates to the use of a lever and brake, so arranged and applied, in contiguity to the side wheel as to enable an operator to dislodge the chain or cable from its contact or rest in the groove of said wheel when the boat is approaching the lock or otherwise.

Figure 1 represents a section of a canal and lock with a boat with our improvement therein. Fig. 2 represents a section of the grooved traction-wheel; and Fig. 3 is a perspective view of our lever and brake for throwing the chain out of contact with the wheel.

When the boat, singly or otherwise, approaches the lock by propeller the chains or cables are so arranged that the side-grooved wheel can readily be directed, by the helms-

man or other attendant, to take up the chain and form the contact; and by throwing off the screw or propeller power the chain or cable will then become the means, with the side wheel, to move the boat, &c., at any required speed through the canal. As the boat, &c., nears the lock the operator dislodges the chain or cable, when the screw or propeller is again brought into requisition; and thus alternately, in the passage from one extreme to the other, boats may be moved at any required speed without injury to the banks, and at a great economy of expense and labor.

What we claim as our invention is—

The lever and brake L B, in combination with the boat, for the purpose of dislodging the chain or cable from the side-grooved rimmed wheel W.

JOHN HENRY WYGANT.
CHRISTOPHER PRESTON.
CASPER J. WESTERVELT.

Witnesses:

WM. W. HARPER,
JACOB P. WESTERVELT.