

D. W. COOKE.
TOWING CANAL BOAT.

No. 185,854.

Patented Jan. 2, 1877.

Fig. 1

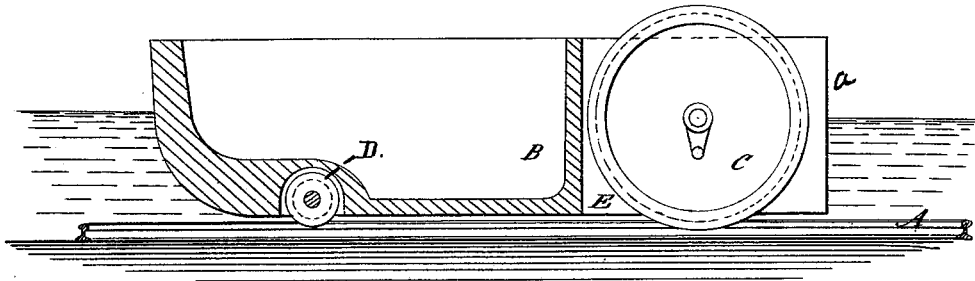
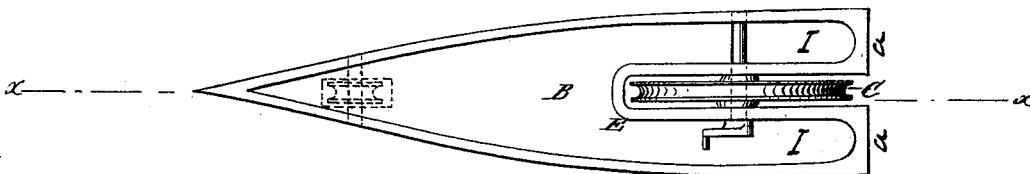


Fig. 2



WITNESSES:

C. Neveux
John Goethals

INVENTOR:

D. W. Cooke

BY

Munnell

ATTORNEYS.

UNITED STATES PATENT OFFICE.

DAVID W. COOKE, OF FRANKLIN, TENNESSEE.

IMPROVEMENT IN TOWING CANAL-BOATS.

Specification forming part of Letters Patent No. **185,854**, dated January 2, 1877; application filed March 21, 1876.

To all whom it may concern:

Be it known that I, DAVID W. COOKE, of Franklin, Williamson county, Tennessee, have invented a new and Improved Machine for Propelling Canal-Boats, of which the following is a specification:

My invention relates to that class of submerged, or partially-submerged, driving-wheels which run upon a rail laid upon the bottom of the canal; and the nature thereof consists in combining the said wheel with a boat of peculiar construction and operation, as hereinafter described.

In the accompanying plate of drawings, in which corresponding parts are designated by the same letters, Figure 1 is a section of the boat taken longitudinally in the vertical plane on the line *x x* of Fig. 2. Fig. 2 is a plan view.

In the said drawings, A designates the submerged rail, laid upon the bottom of the canal, upon which the driving-wheel, which is provided on each side with a flange, to keep it on the rail, runs. The said driving-wheel revolves within a chamber, E, in the stern of the boat, in such a manner as to cause the draft of said boat to bear near as possible to the axis of the said wheel.

On each side of the said chamber E are arranged the tank-holds I, for the reception of the ballast-tanks. The said ballast-tanks are

provided with pumps, or other means of discharging or regulating the quantity of water within the same, for the purpose of giving the wheel the required amount of traction, or lifting the same entirely from the track when it is required to pass a lock.

The stern *a* of the boat is square, and constructed of such a size that it will exactly correspond with the bow of the canal-boat to which it is attached, thereby obviating the displacement of the water, which would otherwise occur.

By this construction a tug is provided for a canal-boat, or a series of canal-boats, in which the traction of wheel may be accurately regulated by water-ballast, and which acts as a bow in preventing the displacement of the water.

I am aware that it is not new to combine a traction driving-wheel with a submerged rail, and that water-ballast is in common use;

I therefore claim and desire to secure by Letters Patent of the United States—

A tug for propelling canal-boats, having a square stern, *a*, ballast-holds I, chamber E, and traction-wheel C, as and for the purposes described.

DAVID W. COOKE.

Witnesses:

H. D. CAMPBELL,
M. ANNIE HOUSE.