

J. T. TEASDILL.

Improvement in Propelling Canal-Boats.

No. 129,192.

Patented July 16, 1872.

Fig. 1.

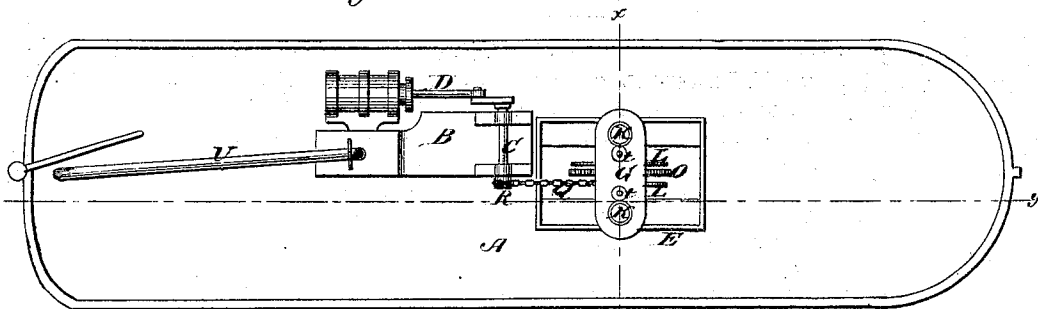


Fig. 2.

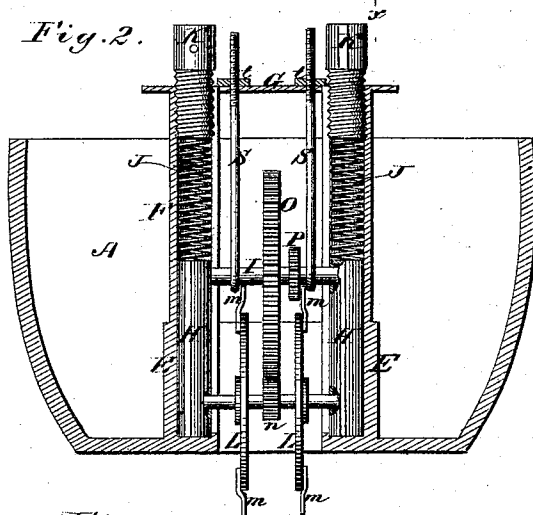
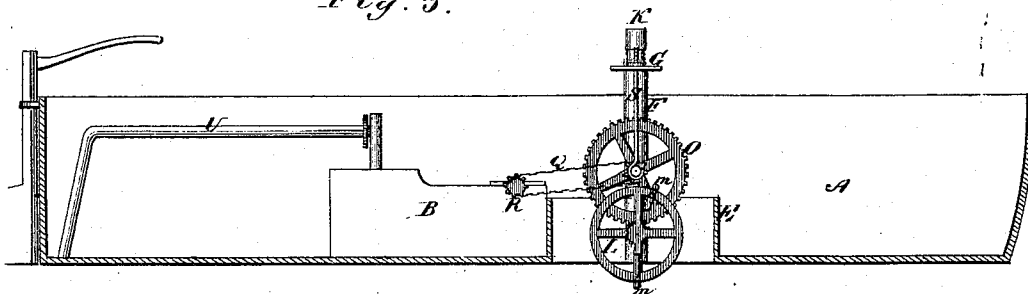


Fig. 3.



Witnesses.
C. F. Brown
D. W. Ellsworth

Inventor.
John T. Teasdill
By H. E. Fellows
His Attorney.

UNITED STATES PATENT OFFICE.

JOHN T. TEASDILL, OF LOCKPORT, NEW YORK.

IMPROVEMENT IN PROPELLING CANAL-BOATS.

Specification forming part of Letters Patent No. 129,192, dated July 16, 1872.

To all whom it may concern:

Be it known that I, JOHN T. TEASDILL, of Lockport, in the county of Niagara and State of New York, have invented an Improvement in the Propulsion of Canal-Boats; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is a plan view of a canal-boat provided with my improved propelling apparatus. Fig. 2 is a transverse section of the same taken in the line *x x*, Fig. 1; and Fig. 3 is a longitudinal section taken in the line *y y*, Fig. 1.

Similar letters of reference in the accompanying drawing indicate the same parts.

My invention has for its object to provide improved means for propelling canal-boats for the purpose of doing away with draft-animals and preventing the wash of canal-banks. To this end the invention consists in the construction of the propelling mechanism driven by a steam-engine and arranged within the boat, as I will now proceed to describe.

In the accompanying drawing, A is the canal-boat, of the ordinary construction; and B is a steam-engine located within the same at or near the center. C is a crank-shaft mounted transversely upon the frame of the engine and connected with the piston-rod D. E is a tank surrounding an opening in the bottom of the boat immediately in front of the engine; and F are two tubular standards secured with the tank upon opposite sides thereof, being connected together at their upper ends by a top plate, G. Within the standards are arranged short bars or guides H, connected together at their upper and lower ends by shafts I, so as to form a sliding frame, the shafts moving freely through vertical slots formed in the proximate sides of the standards. The frame is held at the bottom of the standards by spiral springs J, whose tension is regulated by the screw-bolts K arranged in the top of the standards, as shown. L are wheels arranged upon the lower shaft of the frame a short distance apart, and provided with peripheral buckets *m*. Between the paddle-wheels the shaft carries a pinion, *n*, which meshes into a large gear-wheel, O, mounted upon the upper shaft. A sprocket or chain wheel, P, is also mounted upon this shaft, around which a chain, Q, passes to a second

wheel, R, mounted upon the end of the crank-shaft C, as shown. By this means the paddle-wheels are driven from the engine to propel the boat in a canal or other body of water, while the arrangement of said wheel to operate through the bottom of the boat causes less agitation of the water, and, therefore, prevents the wash of the canal-banks to a great extent.

By adjusting the screw-bolts K in the tubular standards the tension of the springs J is adjusted to raise or lower the paddle-wheels for operation in deep or shallow water. The wheels are held in an elevated position against the tension of the springs by two parallel screw-rods, S, which connect it at their lower ends with the upper shaft of the sliding frame, and are made adjustable in the top plate G by means of nuts *t* fitted upon their upper ends.

In constructing a canal I propose to form the bottom with cement or suitable flagging, so that when the boat is floating in shallow water the propelling-wheels, from which the paddles have been previously detached, shall rest upon the flagging.

When the engine is in operation the wheels run on the flagging to propel the boat. To increase the speed of the same the exhaust steam from the engine may be directed against the water at the stern of the boat by means of a pipe, U, as shown in Figs. 1 and 3.

Any suitable arrangement desired may be employed to lengthen or shorten the chain by which the propelling-wheels are driven from the engine, when for any purpose this becomes necessary or desirable.

Having thus described my invention, what I claim is—

1. The frame, carrying the propelling-wheels so as to project through the bottom of the boat, made adjustable by means of the adjustable springs J and rods S, substantially as described, for the purpose specified.

2. The frame H I, carrying the propelling-wheels, in combination with the slotted tubular standards E, the screws K, and the adjustable springs J, substantially as described, for the purpose specified.

his
JOHN T. TEASDILL.
mark.

Witnesses:

N. P. CURRIER,
AARON SILK.