

WILLIAM THOMSON.
Improvement in Paddle Wheels.

No. 121,689.

Patented Dec. 5, 1871.

Fig. 1.

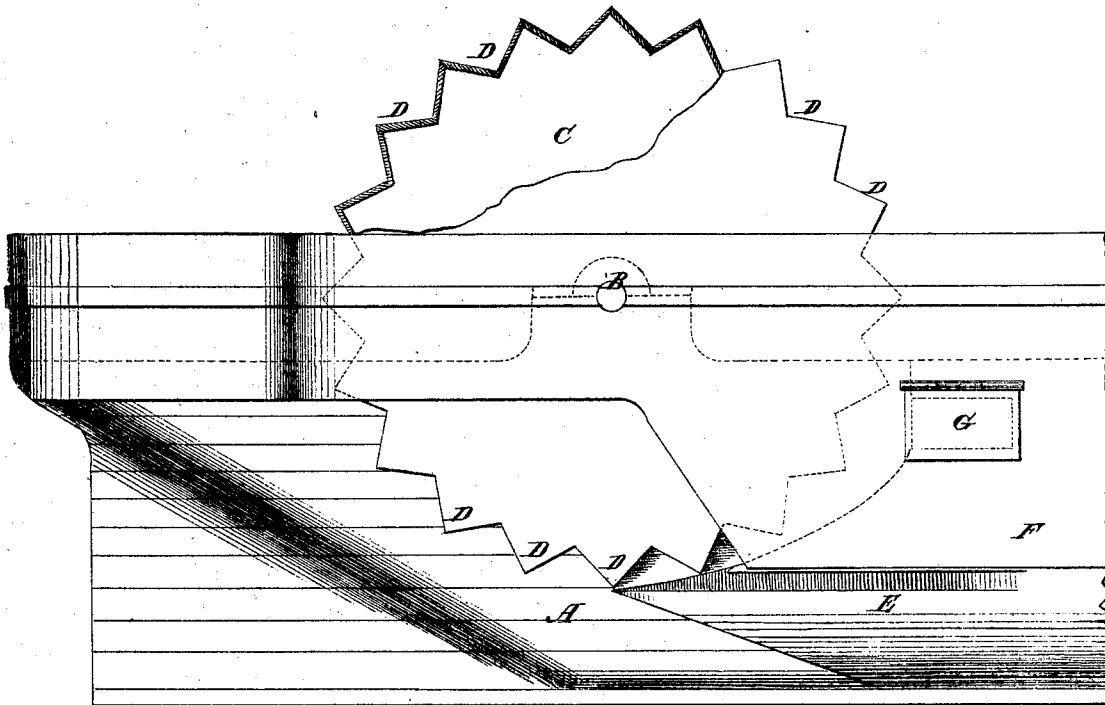
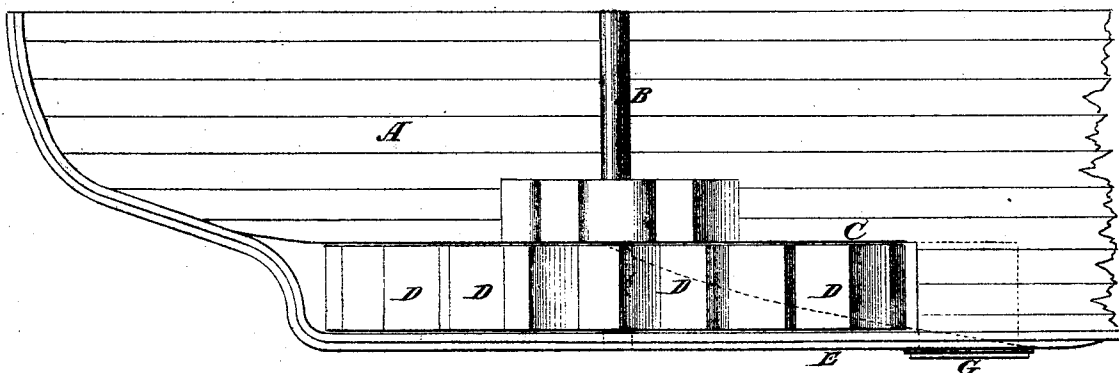


Fig. 2.



Witnesses:

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WILLIAM THOMSON, OF MADISON, WISCONSIN.

IMPROVEMENT IN PADDLE-WHEELS.

Specification forming part of Letters Patent No. 121,689, dated December 5, 1871.

To all whom it may concern:

Be it known that I, WILLIAM THOMSON, of Madison, in the county of Dane and State of Wisconsin, have invented a new and useful Improvement in Propelling Vessels; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming a part of this specification.

This invention relates to a new and useful improvement in mode of constructing paddle-wheels for steam-boats; and it consists in making the wheel hollow, or with hollow sections or compartments, for containing water when desired, and in a water-channel and valve opening in the guard-filling of the boat, as will be hereinafter more fully described.

In the accompanying drawing, Figure 1 is a side view of a boat with my improved wheel applied. Fig. 2 is a top or plan view.

Similar letters of reference indicate corresponding parts.

A is the boat. B is the paddle-wheel shaft. C is the wheel. This wheel is cast or made like a hollow drum, with sections or compartments therein, which may be filled with water when the vessel is light or without freight, so that the water

may act as ballast. D represents the propelling-buckets, which consist of a series of notches in the face or periphery of the wheel, the sides of which are at an angle of about forty-five degrees with each other. E is a channel extending forward from a point beneath the center of the wheel, through which water passes to the wheel. This channel is cut in the filling F beneath the guards and forward of the wheel, the filling being flush with the side of the wheel, and circled out in front of the wheel, as indicated in dotted lines in Fig. 1. When the motion of the wheel is reversed the water carried up by the wheel is discharged through the opening G, which is provided with a flap-valve which closes on the outside. The wheels may be used either with or without the channel E.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The combination of the filling F, channel E, and valve-opening G, substantially as and for the purpose described.

WILLIAM THOMSON.

Witnesses:

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(139)