(No Model.)

J. PONS.

STEAM CANAL BOAT.

No. 282,923. Patented Aug. 7, 1883.

Fig. 1.

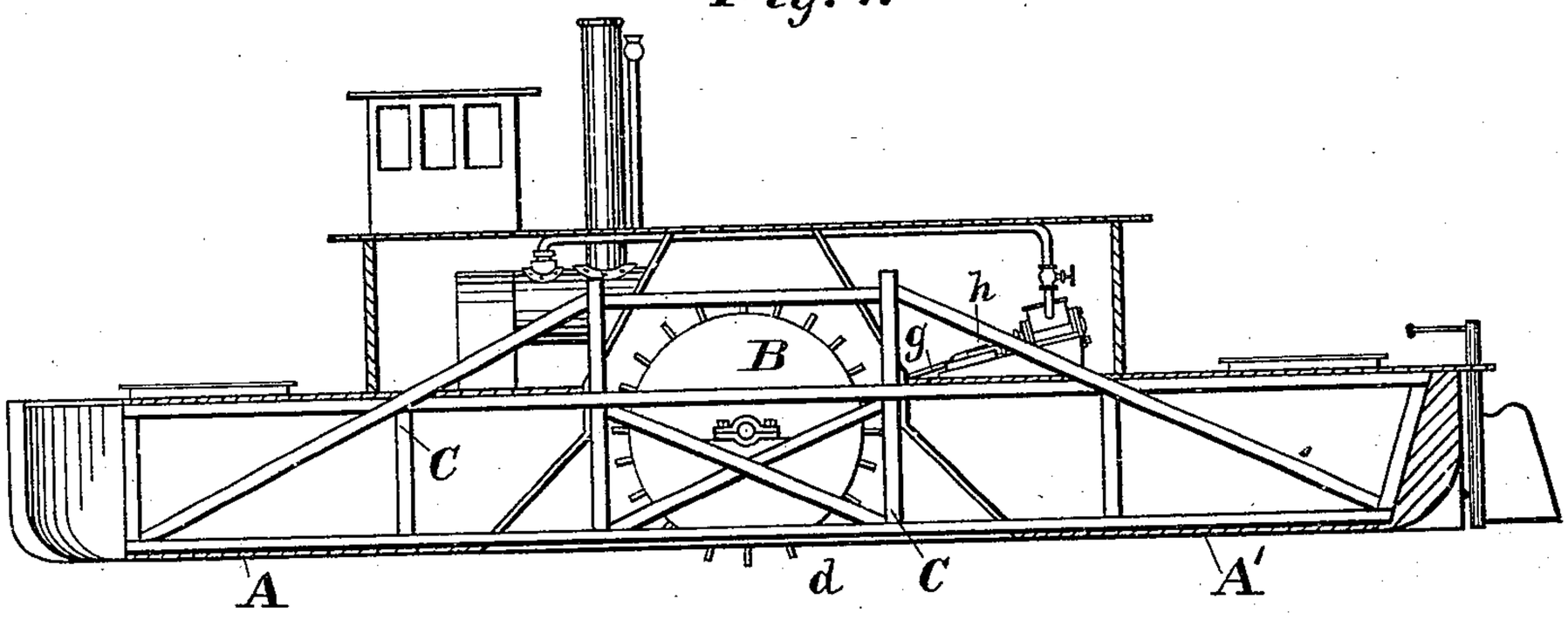


Fig. 2.

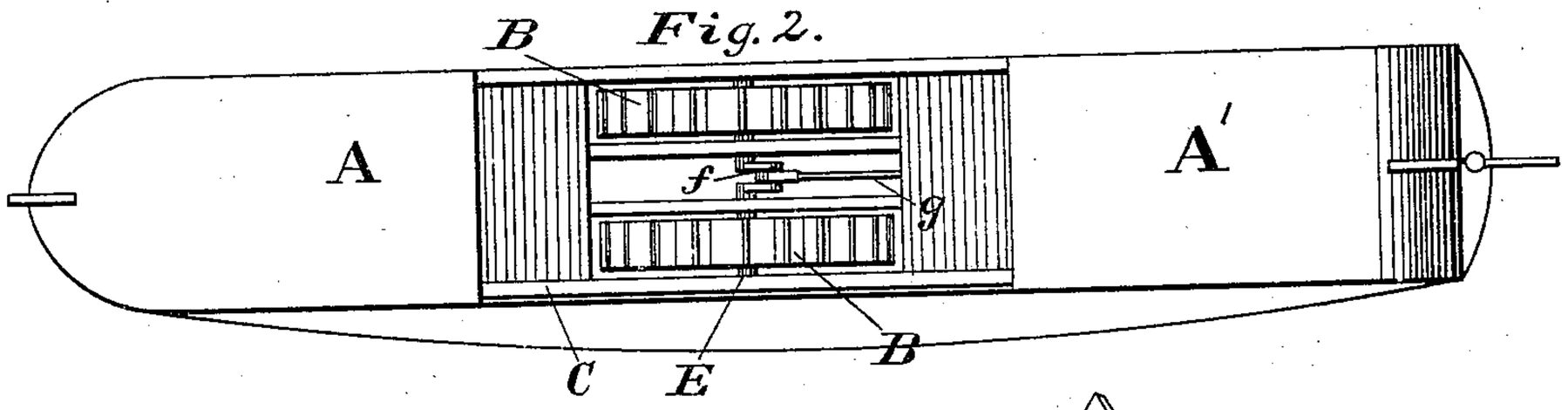


Fig. 3.

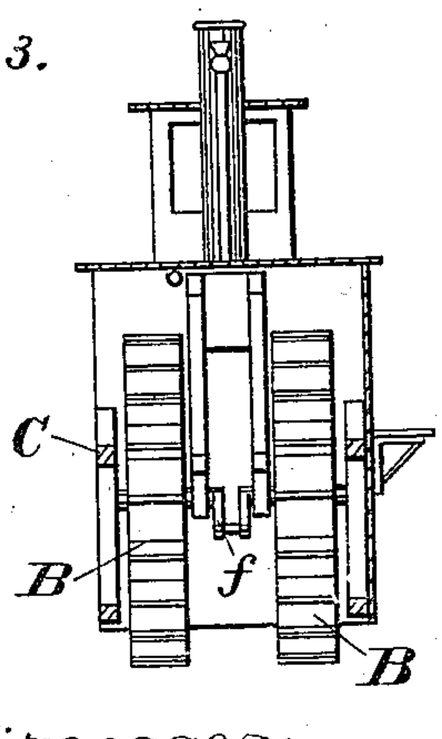
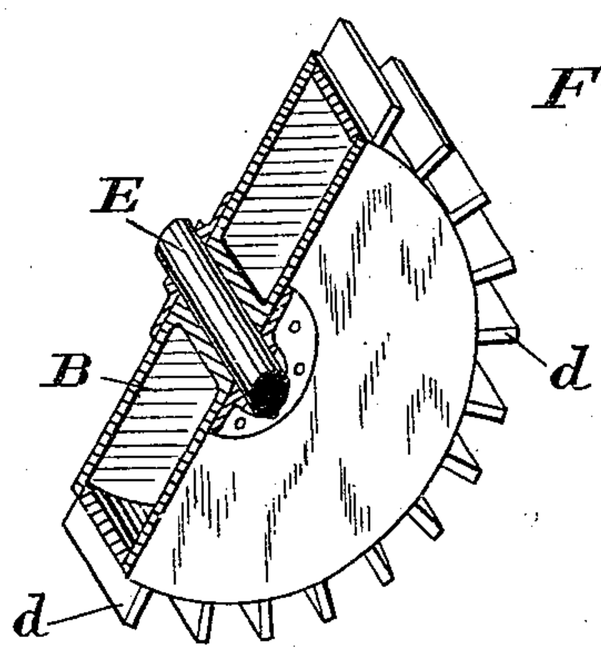


Fig. 4.



Witnesses:
A. C. Eader
John E. Morris.

Inventor:
John Pons
By Chas B. Mann
Attorney.

UNITED STATES PATENT OFFICE.

JOHN PONS, OF BALTIMORE, MARYLAND, ASSIGNOR OF ONE-HALF TO CHRISTIAN COOK, OF SAME PLACE.

STEAM CANAL-BOAT.

SPECIFICATION forming part of Letters Patent No. 282,923, dated August 7, 1883.

Application filed March 1, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOHN PONS, a citizen of the United States, residing at Baltimore and State of Maryland, have invented certain new and useful Improvements in Steam Canal-Boats, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to certain improvements in steamboats, designed more especially for canal-boats. The construction of the improved parts will be described, and the invention will then be designated in the claim.

In the drawings hereto annexed, Figure 1 is a side elevation, partly in section. Fig. 2 is an inverted plan of the boat-bottom. Fig. 3 is a cross-section of the boat. Fig. 4 is a sectional view of the hollow wheel.

The letter A designates one hull, and A′ the other, of which my boat is composed. These two hulls are placed end to end, or one endwise in front of the other. The wheels B are located between the ends of the two hulls, so that, considering the two hulls as constituting one boat, the wheel may be described as located in the center. A suitable frame-work of timbers, C, connects the two hulls together as rigidly as though they were one, and this frame-work has inclosed walls or vertical sides extending down into the water on a line with the bottom of the hull or keel. The other several parts of the boat may be constructed as usual, and it is therefore unnecessary to particularly describe the same here. Two wheels are shown in the present instance. One may, however, be used alone. The wheel B consists of a hollow air and water tight vessel. (Shown in section in Fig. 4.) It is a large circular drum, and is provided on the rim with cross blades or paddles *d*, which act on the water. These paddles have a width in the radial direction which, compared to the measurement of the semi-diameter of the wheel, is as one to sixteen, or thereabout. The shaft E, on which the wheel is mounted, has bearings on the rigid frame-work, and said shaft has a crank, *f*, to which the rod *g* connects. The piston-rod *h* of the engine, through the medium of the connecting-rod *g*, turns the crank and wheel, as usual. The paddles on the lower side of the wheels, as seen by reference to Figs. 1 and 3, are on a line about even with—or, in other words, do not project below—the bottom of the hulls, and as the supporting frame-work is rigid the wheel-paddles always remain in the same position relative to the bottom of the hull. As the vertical side walls extend down into the water as far as the lowermost paddles, the wheels are completely housed up or inclosed, and the agitation of the water is thereby prevented from spreading and producing a swell. The wheel, being hollow and air and water tight, has great buoyancy, and, instead of being a dead weight on the hulls of the vessel, sustains itself, and serves to assist in floating the loaded boat. Another feature in this wheel is that as the wheel has a large diameter in comparison to the width of the paddles on the rim the action of the paddles on the water takes place only at the greatest depth; thereby the maximum of propelling effect is obtained with the minimum of agitation to the water. As with such a wheel, located and housed or inclosed, as shown, in the center of the boat or between the two hulls, there will be but little agitation of the water, the liability of injuring the banks is overcome.

Having described my invention, I claim and desire to secure by Letters Patent of the United States—

A steamboat having two hulls, one endwise in front of the other, a frame-work, C, of timbers connecting the hulls as rigidly as though they were one, the propelling-wheel supported on the rigid frame-work, and vertical side walls over the frame-work, extending down into the water as far as the lowermost wheel-paddle, whereby the wheel is completely housed up or inclosed in the center of the boat, as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN PONS.

Witnesses:
JNO. T. MADDOX,
JOHN E. MORRIS.