

(No Model.)

2 Sheets—Sheet 1.

S. D. THORSON.
STEAMBOAT

No. 569,253.

Patented Oct. 13, 1896.

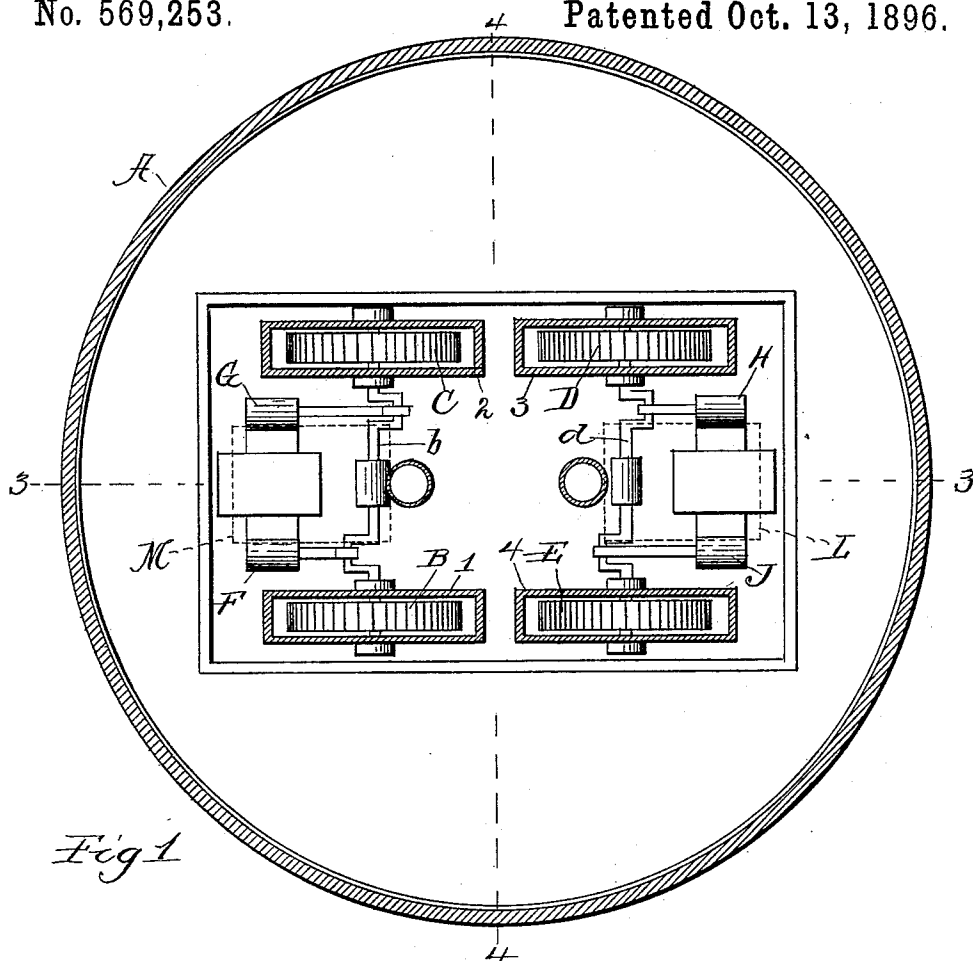
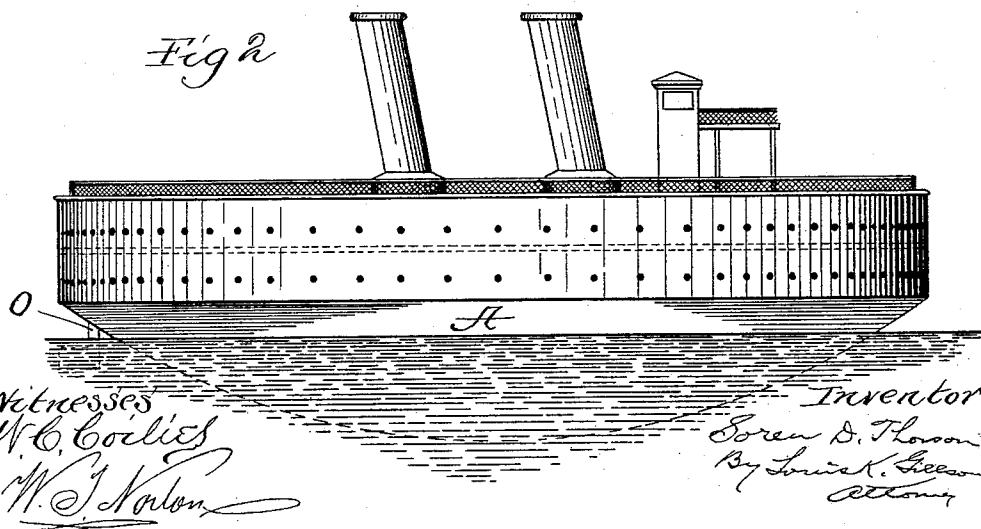


Fig 1



Witnesses
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W. J. Nelson

Inventor
Soren D. Thorson
By Louis K. Green
Attorney

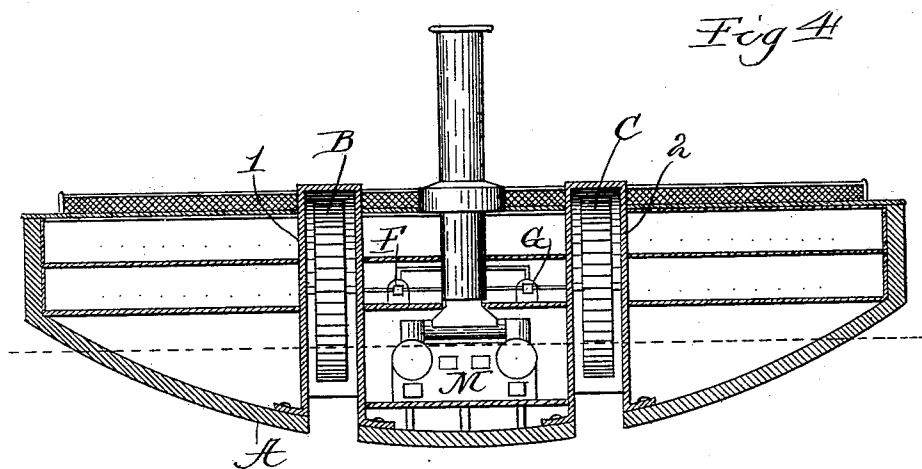
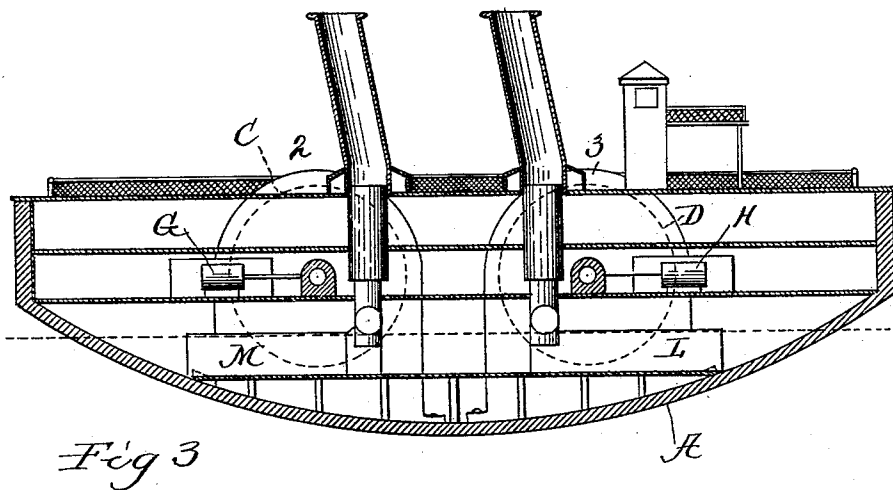
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2 Sheets—Sheet 2.

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Patented Oct. 13, 1896.



Witnesses
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UNITED STATES PATENT OFFICE.

SOREN D. THORSON, OF CHICAGO, ILLINOIS.

STEAMBOAT.

SPECIFICATION forming part of Letters Patent No. 569,253, dated October 13, 1896.

Application filed November 7, 1895. Serial No. 568,160. (No model.)

To all whom it may concern:

Be it known that I, SOREN D. THORSON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Steamboats, of which the following is a full, clear, and exact description, and which are fully illustrated in the accompanying drawings, which form a part of this specification.

The object of the invention is to secure a construction of the hull of a paddle-propelled vessel so that its form will cause the least possible resistance to its passage through the water, and to this end I construct the vessel in circular form and make its hull in the form of a sectional sphere of uniform curvature. The engines and boilers are located in the center of the vessel, and the propulsion is secured by means of paddle-wheels located in wheel-houses opening to channels crossing the bottom of the boat.

In the accompanying drawings I show, in Figure 1, a plan section of boat through its engine-room; Fig. 2, a side elevation of the same; Fig. 3, a vertical section on the line 3 3 of Fig. 1, and Fig. 4 a vertical section on the line 4 4 of Fig. 1.

The hull A of the vessel is in the form of a section of a sphere and is of uniform curvature throughout. The vessel is provided with four paddle-wheels B C D E, which are arranged in pairs, each pair being driven by means of a single crank-shaft, as *b d*. Four engines may be used, if desired, and are located, as indicated, at F G H J, and are supplied with steam from boilers, as L M, located below the engine-room.

The paddle-wheels are located in wheel-houses 1 2 3 4, opening through the bottom of the boat as near its central point as practicable, so that as the vessel rolls in rough weather the paddle-wheels are in no danger of being exposed to the action of the waves.

While the vessel is exactly circular in form, its bow and stern are determined by the position of the paddle-wheels, and at the stern is located a rudder of ordinary construction, as indicated at O.

The deck or upper portion of the vessel may be of any desired form. I deem it advisable to so construct the boat that the curvature of its circumference coincides with the curvature of the hull.

As the vessel moves through the water it

presents an inclined face, whereby its speed tends to raise it, as the body of a swimmer is in a measure raised when the feet are allowed to become considerably submerged, so that the chest is inclined. The use of paddle-wheels, furthermore, has the same tendency to raise the boat in the water, and to facilitate this action it is important that paddle-wheels of modern type be used, in which the blades are "feathered." The construction of these wheels is so well known that I have not deemed it necessary to illustrate it. It will be seen, therefore, that the greater the speed the more the vessel will be raised, and, consequently, the less will be the resistance to its advance through the water, the tendency being constantly to elevate the boat toward the point at which it would merely skim over the surface, though of course it is not my expectation that the boat will be raised to that extent.

Parallel channels are formed across the bottom of the boat and to them the wheel-houses open, so that the paddles may be placed at such height within the boat that their shafts will be above the line of draft, the paddles having direct action upon the water to drive it backwardly, the effect being to draw the water through these channels from the bow of the vessel and force it backwardly through them.

I claim as my invention—

1. In a vessel or ship substantially as described, the combination with a hull in the form of a section of a sphere and having parallel open channels across its bottom and wheel-houses opening to such channels, of paddle-wheels located within the wheel-houses and having their journal-bearings above the water-draft line, substantially as described and for the purpose set forth.

2. A boat substantially as described having a circular hull whose bottom is of uniform curvature in all directions and across which run a pair of parallel open channels, and having wheel-houses opening to such channels and paddle-wheels journaled within such wheel-houses and in planes parallel with the channels, substantially as described and for the purpose set forth.

SOREN D. THORSON.

Witnesses:

LOUIS K. GILLSON,
SPENCER WARD.