

J. FLEMING & J. L. NIMAN.

TOY STEAMBOAT.

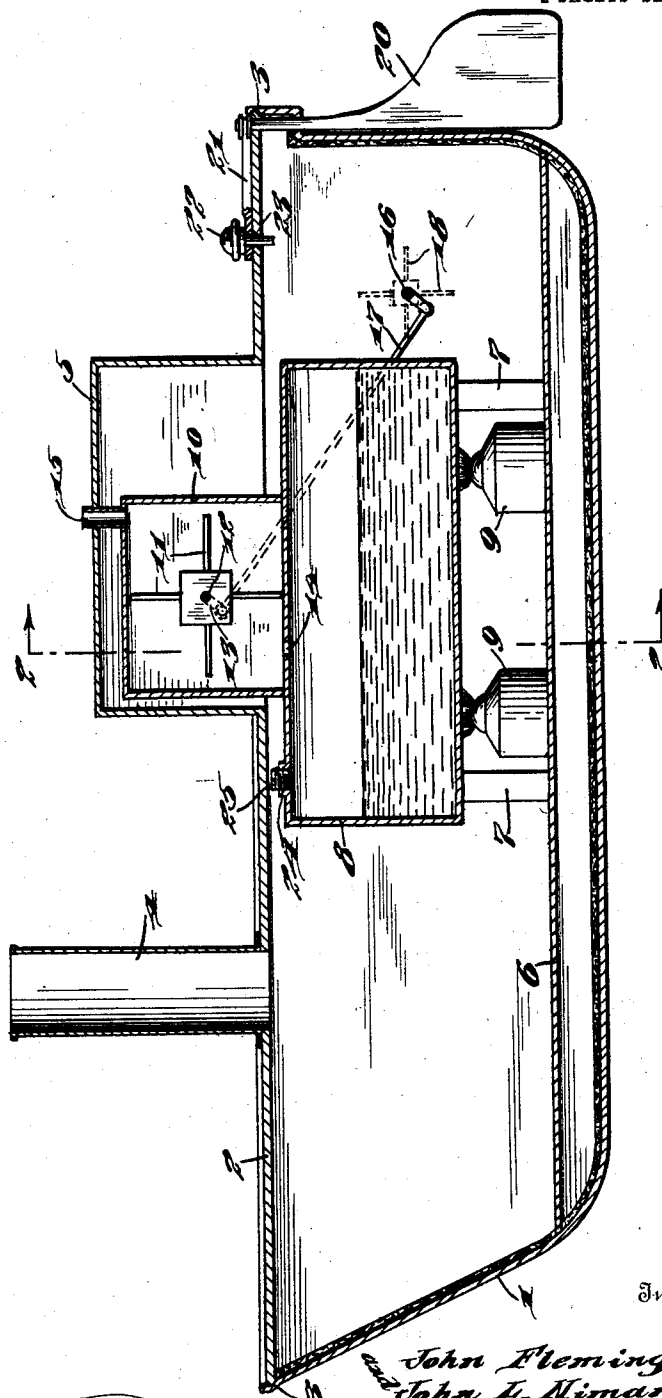
APPLICATION FILED SEPT. 14, 1910.

997,492.

Patented July 11, 1911.

2 SHEETS—SHEET 1.

Fig. 1.



Witnesses

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2 SHEETS—SHEET 2.

Fig. 2.

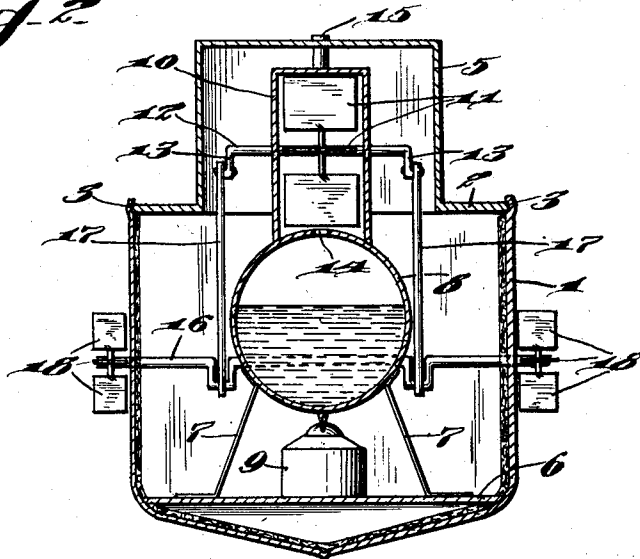


Fig. 3.

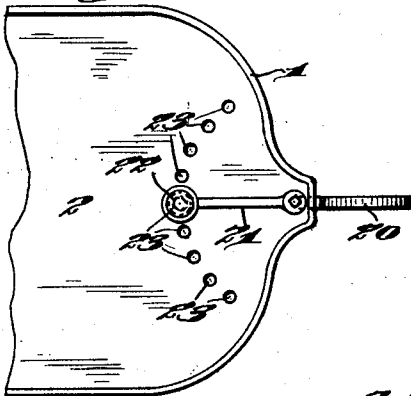


Fig. 4.

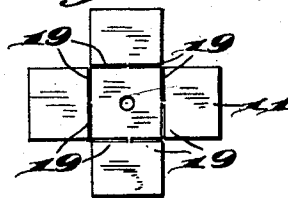
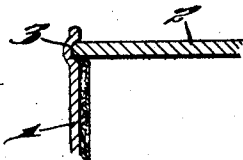


Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

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TOY STEAMBOAT.

997,492.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, JOHN FLEMING and JOHN L. NIMAN, citizens of the United States, residing at Lewistown, in the county of Mifflin and State of Pennsylvania, have invented certain new and useful Improvements in Toy Steamboats, of which the following is a specification.

Our invention relates to improvements in toy steamboats, the object of the invention being to provide an extremely inexpensive construction of toy boat having an improved arrangement of boiler, steam impact wheel, and water wheels or propellers for driving the boat through the water.

A further object is to provide a steering rudder with improved means for locking the rudder at various angles so as to guide the boat either in a straight line or in the arc of a circle.

With these and other objects in view, the invention consists in certain novel features of construction and combinations and arrangements of parts, as will be more fully hereinafter described and pointed out in the claims.

In the accompanying drawings: Figure 1, is a view in longitudinal section illustrating our improvements. Fig. 2, is a view in cross section on the line 2—2 of Fig. 1. Fig. 3, is a fragmentary plan view of the rear end of the boat. Fig. 4, is a plan view of the blank from which the rotary element of the steam impact-wheel and the water wheels are made, and Fig. 5, is a fragmentary detail view in vertical section illustrating the manner in which the deck is removably clamped in the hull.

1, represents the hull of the boat which is preferably made of wood provided with an asbestos lining, but may be made of metal or any suitable material.

2 is the deck of the boat which is adapted to spring into a groove 3 in the hull to hold the deck in position, but permits its removal when desired.

As illustrated, the deck is provided with a representation of a smoke stack 4 and a superstructure 5, but various other representations may be provided on the deck in accordance with the style of boat the toy is intended to portray.

In the hull 1 a platform 6 is secured, and on this platform lugs 7 are secured supporting a cylindrical boiler 8 spacing the same from the platform so as to provide

room for the accommodation of lamps 9 below the boiler to heat the same. A wheel casing 10 is secured on the boiler and contains an impact wheel 11 which is secured upon the shaft 12 projecting through casing 10, and having crank arms 13 at its ends. The boiler 8 is provided with a small steam outlet 14 which directs the steam against the blades of the wheel 11 so as to revolve the latter, and the exhaust steam escapes through a port 15.

16, represents a transverse crank shaft which projects through the hull 1, and the cranks of this shaft 16 are connected by rods 17 with the cranks 13 of shaft 12, so that the rotary motion of the shaft 12 is imparted to shaft 16. On the ends of shaft 16, at both sides of the hull, water wheels or propellers 18 are secured, and as the latter turn, they propel the boat through the water. The propellers 17 and the rotary element 11 are all alike in construction, with the exception that the wheel 11 is preferably larger than the water wheels 18, and they are each made from a blank such as shown in Fig. 4. This blank is stamped from sheet metal and is in the general shape of a cross, the projecting ends being provided with slits 19 extending from the edges to a point near the center, and these ends are then bent at right angles with the central portion of the blank forming the blades or vanes of the water wheels or rotary element, and the central portion is perforated as shown, for the reception of a shaft which is preferably soldered therein.

20, represents the rudder which is mounted to swing at the stern of the hull and is provided with a forwardly projecting crank arm 21, having a pin 22 in its free end. This pin 22 is adapted to be positioned in any of a circular series of openings 23 in the deck, so as to hold the rudder at any angle in accordance with the direction the ship is to be steered.

By making the deck 2 and the structure thereon readily removable from the hull, the lamps 9 can be easily placed in position or removed for filling, and can be lighted either before placing under the boiler or afterward as desired.

24, represents a screw threaded water inlet in the boiler, normally closed by a plug 25.

Various slight changes might be made in the general form and arrangement of parts

described without departing from our invention, and hence we do not limit ourselves to the precise details set forth, but consider ourselves at liberty to make such changes and alterations as fairly fall within the spirit and scope of the appended claims.

Having thus described our invention, what we claim as new and desire to secure by Letters Patent is:

10 1. In a toy boat, the combination with a hull, of a removable deck on the hull, a hollow super-structure on the deck communicating with the hull, a boiler mounted in the hull, a wheel casing on top of the boiler
15 projecting up into the super-structure, a pipe connected to said wheel casing and projecting through the super-structure, a steam impact wheel in said casing, said boiler having a steam outlet in line with
20 the blades of said impact wheel, and propelling means operated by said impact wheel, substantially as described.

2. In a toy boat, the combination with a hull, of a removable deck on the hull, a hollow super-structure on the deck communicating with the hull, a boiler mounted in the hull, a wheel casing on top of the boiler projecting up into the super-structure, a pipe
25 connected to said wheel casing and projecting through the super-structure, a steam
30 impact wheel in said casing, said boiler hav-

ing a steam outlet in line with the blades of said impact wheel, a crank shaft projecting through the hull, water wheels on the ends of said crank shaft, a crank shaft driven by
35 said impact wheel, and links connecting the crank shafts, substantially as described.

3. In a toy boat, the combination with a hull, of a removable deck on the hull, a hollow super-structure on the deck communicating with a hull, a boiler mounted in the hull, a wheel casing on top of the boiler projecting up into the super-structure, a pipe
40 connected to said wheel casing and projecting through the super-structure, a steam
45 impact wheel in said casing, said boiler having a steam outlet in line with the blades of said impact wheel, a crank shaft projecting through the hull, water wheels on the ends of said crank shaft, a crank shaft driven
50 by said impact wheel, links connecting the crank shaft, and means for steering the boat, said means capable of fixed adjustment, substantially as described.

In testimony whereof we have signed our
55 names to this specification in the presence of two subscribing witnesses.

JOHN FLEMING.
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Witnesses:

E. A. HOOT,
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