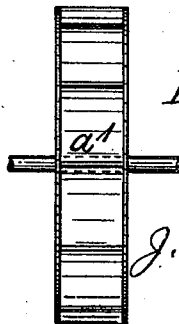
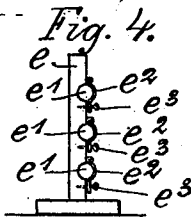
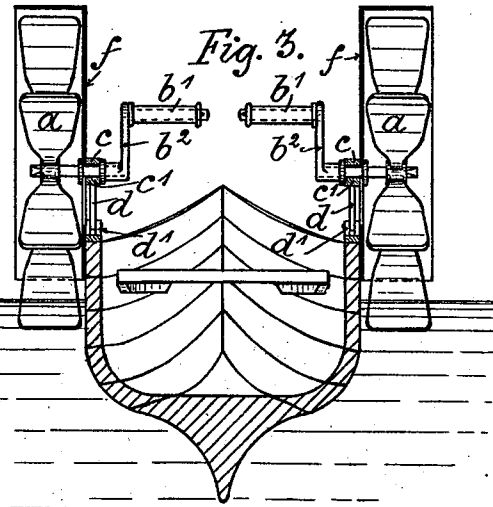
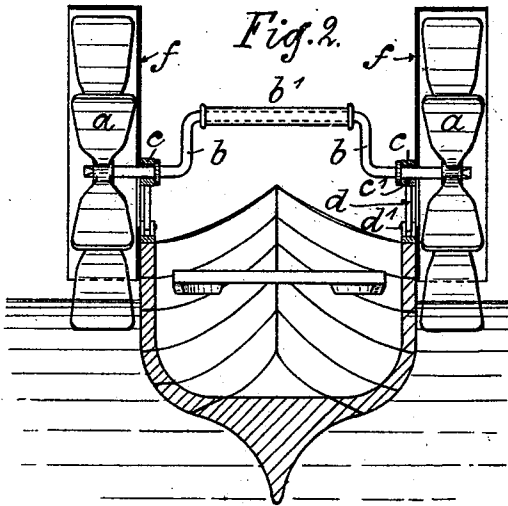
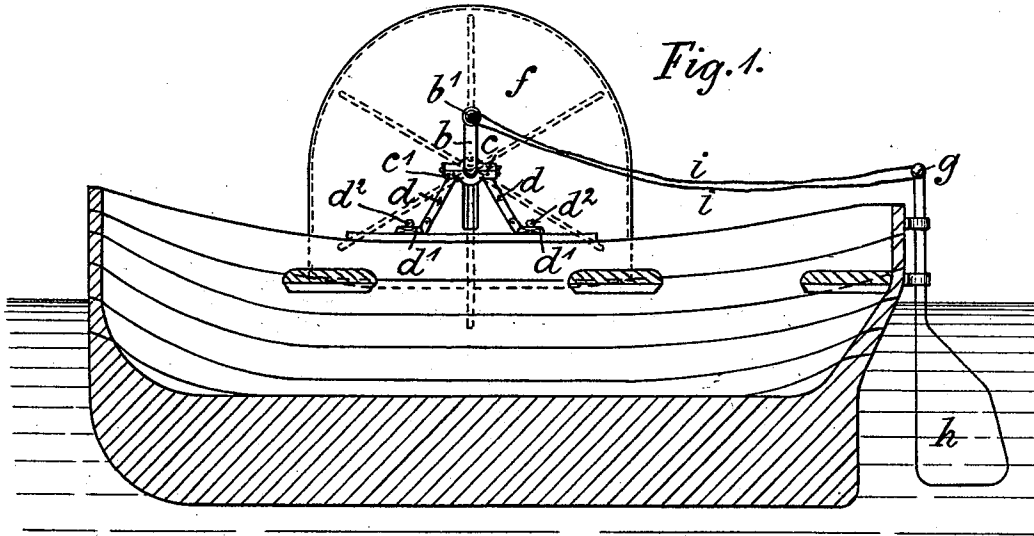


(No Model.)

J. S. KÜNNETH.
PADDLE WHEEL BOAT.

No. 518,255.

Patented Apr. 17, 1894.



WITNESSES:

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JOHANN SIGMUND KÜNNETH, OF LEIPSIC, GERMANY.

PADDLE-WHEEL BOAT.

SPECIFICATION forming part of Letters Patent No. 518,255, dated April 17, 1894.

Application filed August 19, 1893. Serial No. 483,584. (No model.)

To all whom it may concern:

Be it known that I, JOHANN SIGMUND KÜNNETH, merchant, a subject of the Emperor of Germany, residing at 3 Härtelstrasse, Leipsic, Germany, have invented a certain new and useful Paddle-Wheel Boat Governed by Hand, of which the following is a specification.

This invention relates to improvements in rowing-boats and it consists in a certain novel construction and combination of devices fully described hereinafter in connection with the accompanying drawings and specifically pointed out in the appended claim.

In the drawings Figure 1 shows a side view of the new paddle-wheel boat governed by hand. Figs. 2 and 3 are transverse cuts of the same, Fig. 2 representing an arrangement with one cranked-shaft and Fig. 3 shows that with two handles. Fig. 4 indicates a very simple axle-bearing for the paddle-wheels. Fig. 5 is another form of the propelling wheels.

Referring by letter to these drawings: *a* designates winged paddle-wheels.

a' designates box paddle-wheels.

b designates the cranks of the shaft.

b' designates a hand-roller or the handles.

b² designates the cranked parts of the handles.

c designates the upper part of the axle-bearing.

c' designates the lower part of the axle-bearing.

d designates the hinged supports of the bearing. *d'* designates the basis-plates of said supports.

d² designates strong pins used in securing the basis-plates to the edges of the boat.

e designates a strong support for axle-bearings.

e' designates semi-circular holes in that support.

e² designates semi-circular flaps to form axle-bearings. *e³* designates screws for holding these flaps in the closed position.

f designates a casing for the paddle-wheel. *g* designates a cross-bar on the top of the rudder.

h designates the rudder of the boat.

i are the lines to govern the rudder.

The paddle-wheels *a* are fastened to the end of a single crank-shaft *b*, or to two cranked

handles *b² b²*, and dip into the water at the side of the boat. Crank-shaft *b*, that is to say the two cranked handles *b² b²*, the first provided with a hand-roller *b'* are placed on the edges of the boat, and each bearing is properly adapted to facilitate its opening and the taking out of its crank-shaft, in order that the paddle-wheel may be put in or removed at pleasure. Moreover for the purpose of allowing the paddle-wheels to dip more or less deep into the water, each axle-bearing is arranged so that it can be raised or allowed to sink as required. For that purpose several different constructions may be made use of. As for instance in Fig. 1 may be observed, the two parts *c* and *c'* of the axle-bearing are made to fit one upon the other, and are held by two supports *d d*, hinged to the lower part of the bearing *c'*, and provided with movable base-plates *d' d'*, each of which is bored through and placed on the edge of the boat, where by means of a strong pin *d²* passed through the plate, into a bore-hole in the edge of the boat, it is firmly held. By adjusting the base plates toward or from each other the wheels are raised or lowered, the hinged connection of the supports *d d* permitting this movement.

A second and more simple form for axle-bearing is shown in Fig. 4. There is fixed a strong support *e* to the edge of the boat, having several semi-circular holes *e'* one under the other. In front of each hole *e'* is a semi-circular flap *e²* turnable on hinges and forming together with the hole the axle-bearing; by means of a screw *e³* the flap is kept in its closed position. According as the shafts are bedded in one or the other of these axle-bearings, the paddle-wheels dip more or less deep into the water. In consequence of these alterations or various modes of arranging the bearings, one and the same paddle-wheel-insertion can be made use of for boats of different sizes, because the bearing of the inserted apparatus can be arranged according to the relative sizes of the boat and its paddle-wheels. These wheels may be covered by casings or by protection-plates *f* fastened to the boat, so that the inmates of it cannot come into contact with the paddles.

The paddles can be made in various forms;

Figs. 2 and 3 show wing-shaped paddles, while in Fig. 5 a box-shaped-water-wheel a' may be observed. Cross-bar g of rudder h may be provided with two lines i , knotted loosely to the crank-shaft, or to the cranked handles as the case may be, and can be tightened according to requirement by the person turning the crank-shaft, or the handles for the purpose of governing the rudder. This mode of arrangement is to be particularly recommended when only one person is occupying the boat.

The advantages of the new "paddle-wheel-boat" governed by hand consist particularly in the fact that every person unskilled in the art of rowing, can work the inserted apparatus, and that the disagreeable splashing of water caused when an unskilled person, a novice is using the oars, is now avoided. No great strength is required to accomplish the work and the power of motion in comparison with that necessary by using oars can be much

less. Moreover the paddle-wheels placed at the side of the boat project but slightly, which is a great advantage where the boat traffic is considerable. The passenger is not obliged to turn his back to the direction of the course he is pursuing but can seat himself with his face directed toward the front, and can thus observe what is going on before him.

Having thus described my invention, what I claim Letters Patent for is—

A boat propeller consisting of a cranked shaft, a paddle wheel carried on the outer end thereof, bearings for said shaft, hinged supports for said bearings and horizontally movable base plates for said supports, substantially as described.

Signed at Leipsic, Saxony, Germany, this 31st day of July, 1893.

JOHANN SIGMUND KÜNNETH.

Witnesses:

CARL BORNGRAEBER,

OTTO PARROT.