(No Model.)

N. THERIEN.

BOAT PROPELLING APPARATUS.

No. 576.768. Patented Feb. 9, 1897.

Fig. 1.

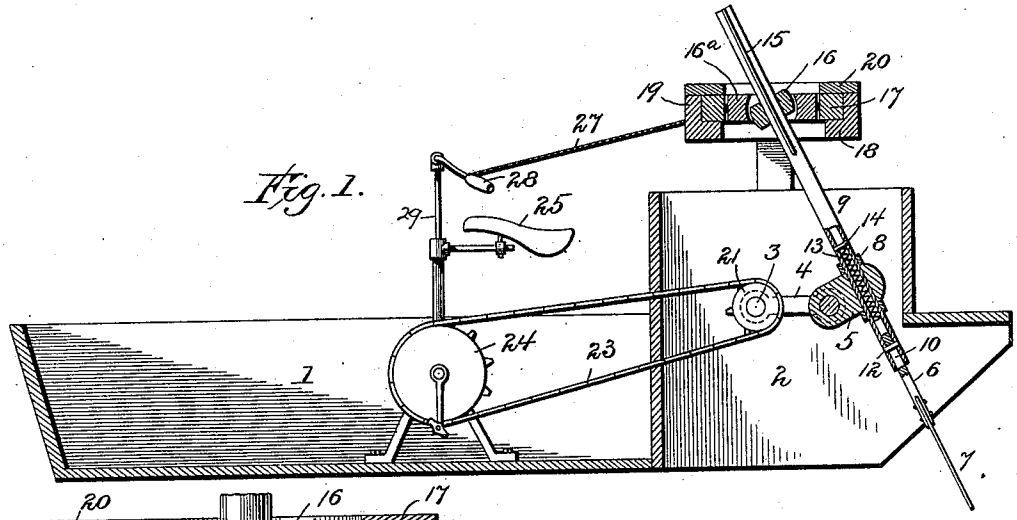


Fig. 3.

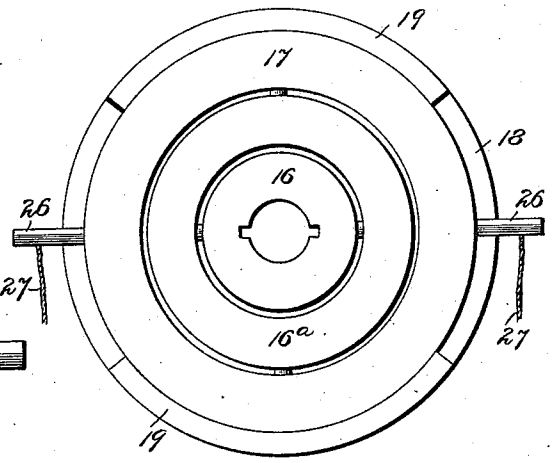
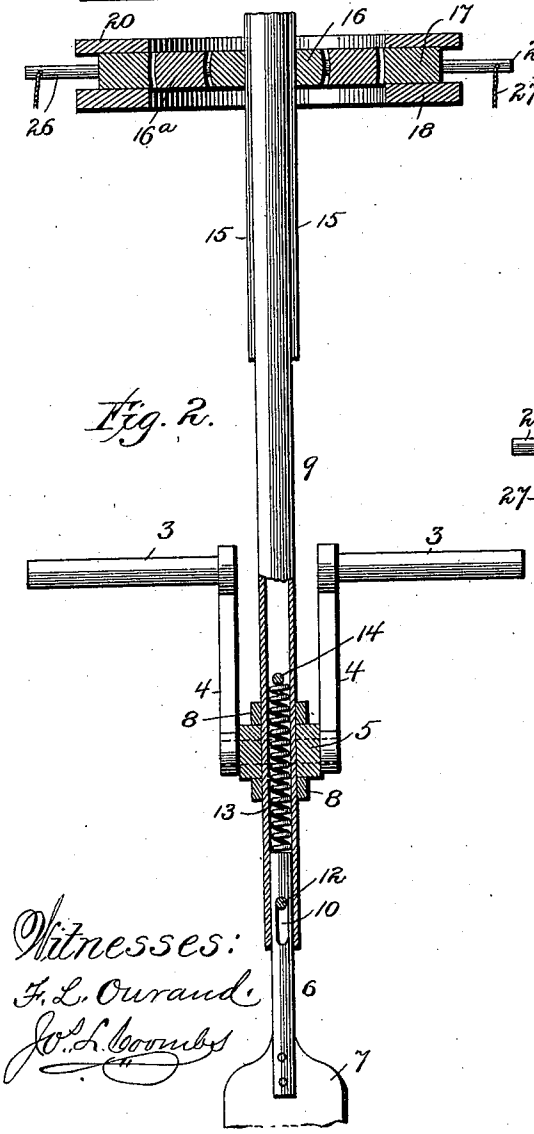


Fig. 2.



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UNITED STATES PATENT OFFICE.

NELSON THERIEN, OF PLYMOUTH, INDIANA, ASSIGNOR OF ONE-HALF TO ALCINOUS STULLER, OF SAME PLACE.

BOAT-PROPELLING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 576,768, dated February 9, 1897.

Application filed June 1, 1896. Serial No. 593,862. (No model.)

To all whom it may concern:

Be it known that I, NELSON THERIEN, a citizen of the United States, and a resident of Plymouth, in the county of Marshall and State of Indiana, have invented certain new and useful Improvements in Boats; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to boats provided with propelling mechanism driven by either foot or hand power, and its object is to provide an improved construction of the same which shall possess superior advantages with respect to efficiency in operation.

The invention consists in the novel construction and combination of parts hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a central longitudinal sectional view of a boat constructed in accordance with my invention. Fig. 2 is a vertical cross-section of the propeller-rod, its tube, and connections, said tube being shown partly in elevation. Fig. 3 is a plan view showing the gimbal-rings and annulus, by which the propelling-blade is turned to steer the boat.

In the said drawings, the reference-numeral 1 designates the hull of the boat, which may be of any ordinary or suitable construction, formed with a rectangular well at the rear. Journaled in the side walls 2 of the well is a transverse shaft 3, provided with a crank 4, to which is journaled a block 5, provided with an aperture through which passes a tube 9, provided with collars 8 above and below the block, by which it is held in place. Fitting in the lower end of this tube is a rod 6, having a propeller or oar blade 7 at the lower end, and is formed with an elongated slot 10, through which passes a bolt 12, which will prevent the rod from turning in the tube, yet will allow it to play up and down to a slight extent. A coiled spring 13 is located in the tube and bears against a bolt 14 through the upper tube and on the upper end of rod 6.

The tube is provided with strips 15 on its outside and passes through an opening in a gimbal-ring 16, the object of the strips being to prevent the tube from turning in said opening. This gimbal-ring is journaled to a larger gimbal-ring 16^a, which in turn is journaled to an oscillating annulus 17, seated on a ring 18, supported by standards secured to the sides of the well. This plate is provided with a rim 19 and a top ring 20 for holding the annulus in place.

Secured to the shaft 3 is a sprocket-pinion 21, connected by means of a sprocket-chain 23 with a sprocket-wheel 24, fixed to a crank-shaft provided with pedals. The numeral 25 designates a seat for the operator while driving the wheel.

Secured to the annulus 17 are two arms 26, to the ends of which are secured cords 27, which are attached to bars 28 of a standard or rod 29, within easy reach of the person on the seat 25. By means of these cords the annulus can be turned to the right or left, turning the propeller-blade correspondingly, so as to steer the boat.

The operation will be readily understood. The wheel 24 is rotated by the person on the seat, after the manner of a bicycle, causing the crank-shaft 3 to be turned. By means of the cranks and block the propeller or rod will be alternately elevated and depressed, so that the propeller blade or paddle will describe a circle, striking the water at the front of the well and emerging therefrom at the rear and then advancing forward to commence another stroke. By this means the boat can be easily and rapidly propelled. By pulling upon either of the cords, as the case may be, the propeller blade or paddle may be turned at an angle to steer the boat. In addition to this a rudder may be applied to each side of the hull, at the rear, if desired.

Having thus fully described my invention, what I claim is—

1. In a boat of the character described, the combination with the propeller-rod, the blade connected therewith, the tube with which said rod is connected, the crank-shaft and the crank connected with said tube, the sprocket-wheel secured to said shaft, and the sprocket-wheel and chain for operating the same, of the gimbal-ring through which said tube

passes, the strips secured to said tube, the gimbal-ring to which said ring is journaled, the annulus having arms and cords and the rings and rim for supporting said annulus, substantially as described.

2. In a boat of the character described, the combination with the well the crank-shaft passing through the sides of the well and means for rotating the same; of the block journaled to the crank, the tube passing through an aperture therein, the propeller blade or paddle, the slotted rod secured thereto fitting in said tube, the bolt passing through said tube, the coiled spring, the gimbal-ring through which the tube passes, the strips secured to said tube, the gimbal-ring to which said ring is journaled, the annulus having arms and cords and the rings and rim for supporting said annulus; substantially as specified.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

NELSON THERIEN.

Witnesses:
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