J. ABRAMSKI.

MANUALLY PROPELLED BOAT.

APPLICATION FILED AUG. 5, 1915.

1,165,375.

Patented Dec. 28, 1915.

2 SHEETS—SHEET 1.

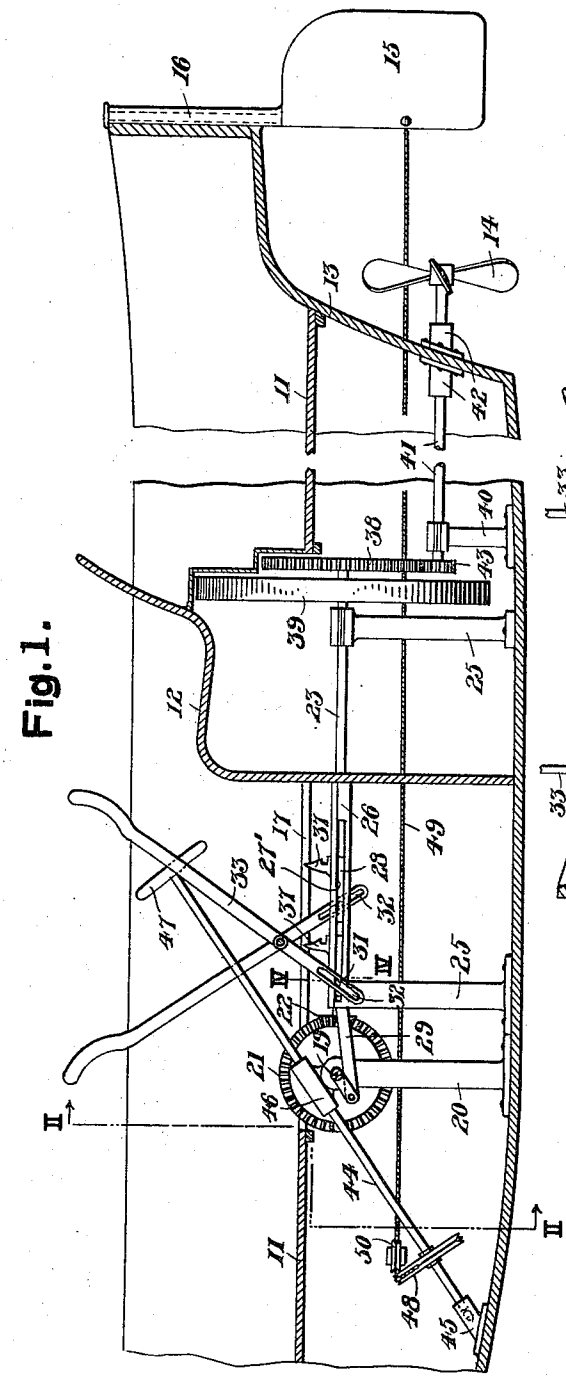


Fig. 1.

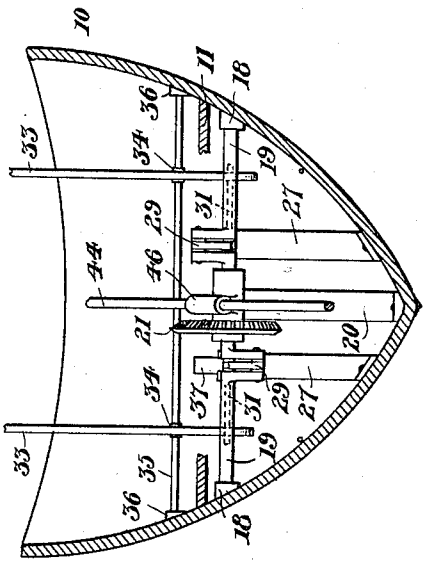


Fig. 2.

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2 SHEETS—SHEET 2.

Fig. 3.

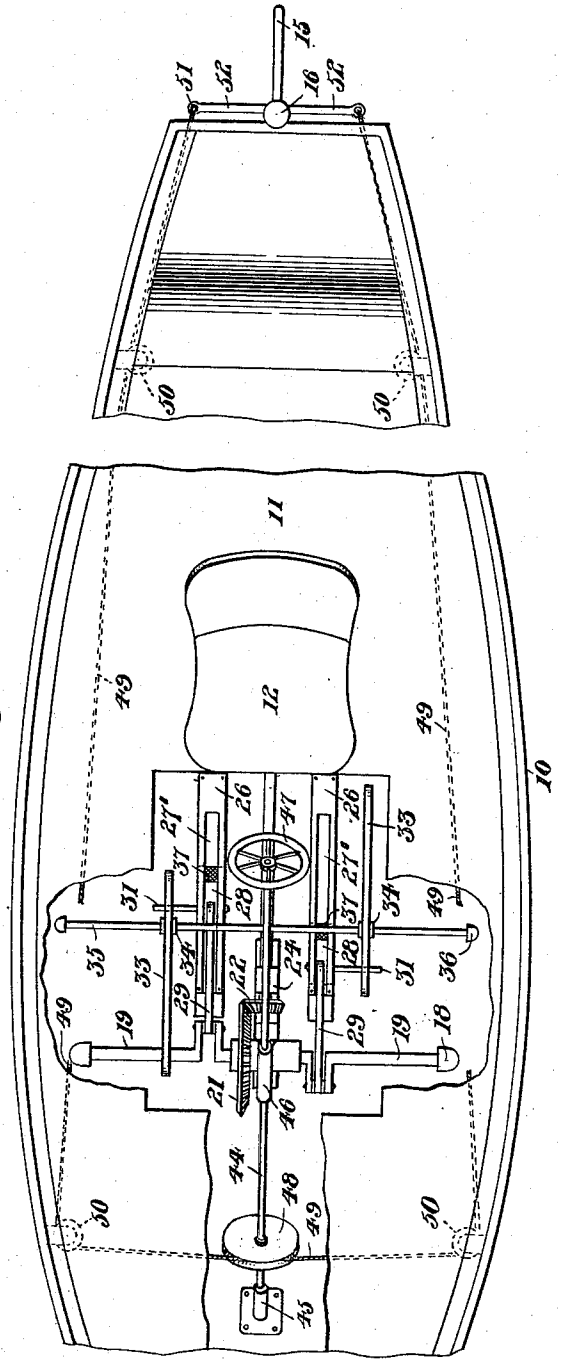


Fig. 5.

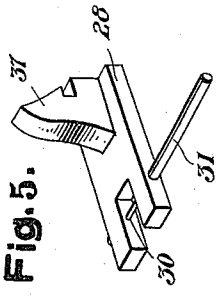
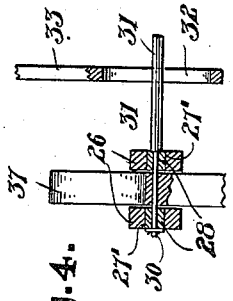


Fig. 4.



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UNITED STATES PATENT OFFICE.

JOSEPH ABRAMSKI, OF NEWARK, NEW JERSEY.

MANUALLY-PROPELLED BOAT.

1,165,375. Specification of Letters Patent. Patented Dec. 28, 1915.

Application filed August 5, 1915. Serial No. 43,795.

To all whom it may concern:

Be it known that I, JOSEPH ABRAMSKI, a subject of the Emperor of Austria-Hungary, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Manually-Propelled Boats, of which the following is a specification.

This invention relates to certain new and useful improvements in manually propelled boats.

An object of the invention is to provide a boat that is manually propelled and which may be operated either by hand or foot with steering means positioned adjacent the operator whereby the direction of travel of the boat may be readily controlled.

With these general objects in view and others that will appear as the nature of the invention is better understood, the same consists in the novel construction, combination and arrangement of parts hereinafter more fully described, illustrated in the accompanying drawings, and pointed out in the appended claim.

In the drawings forming a part of this application and in which like designating characters refer to corresponding parts throughout the several views: Figure 1 is a longitudinal sectional view of a portion of a boat built in acordance with the present invention. Fig. 2 is a cross-sectional view taken on line II—II of Fig. 1. Fig. 3 is a top plan view of a portion of the same partly broken away, better to illustrate the operating mechanism. Fig. 4 is a cross-sectional view taken on line IV—IV of Fig. 1, showing a portion of the hand and foot operating mechanism, and, Fig. 5 is a detail perspective view of one of the sliding foot blocks.

Briefly described, the present invention aims to provide a boat that is manually propelled and to be operated either by hand or foot, the driving mechanism including meshing gearing and a weighted fly wheel positioned beneath the deck of the boat while the hand and foot operating mechanism is positioned directly beneath a hatchway. The steering shaft and wheel are located in front of the operator and in a position whereby the direction of travel of the boat may be readily controlled.

Referring more in detail to the accompanying drawings, the reference numeral 10 designates the hull of the boat including the deck portion 11 and the operator's seat 12. The stern of the boat is provided with the usual clearance 13 for the propeller 14 to the rear of which is located the usual rudder 15 journaled as at 16 to the rear end of the boat. A hatch-way 17 is provided with the deck 11 directly in front of the operator's seat 12 and the main operating mechanism is located within said hatch-way. A pair of oppositely-positioned end sockets 18 are carried by the inner wall of the hull 10 and form end bearings for the crank shaft 19 supported intermediate its ends on a central supporting standard 20. A beveled gear wheel 21 is carried by the central portion of the crank shaft 19 adjacent the supporting standard 20 and is in mesh with a beveled pinion 22 carried by the horizontally journaled shaft 23, the said shaft being supported in standards 24 and 25. A pair of guide racks 26 are supported at their rear ends by the front wall of the seat 12 and at their forward ends are supported by the standards 27, the racks 26 being slotted as at 27′ for the reception of the sliding foot blocks 28 shown in Fig. 5. Pitmen 29 are connected to the cranks of the shaft 19 while the other ends are connected to the cross-pins 30 positioned in the bifurcated end of the foot block 28. The pins 30 extending laterally of the foot blocks 28 as at 31 are adapted to be received in the slotted ends 32 of the handle levers 33, these levers being pivotally connected as at 34 to the horizontal shaft 35 mounted at its ends in bearing supports 36 positioned on the inner face of the hull 10. Heel-engaging members 37 are carried by the sliding foot blocks 28 so that when it is desired to remove the hands from the handle levers 33, the boat may still be propelled in the same direction by reciprocating the blocks 28. A gear wheel 38 is fixed to the rearwardly-extending end of the shaft 23 as is also an enlarged weighted fly wheel 39. A bearing standard 40 is carried by the bottom wall of the hull and supports the propeller shaft 41 which extends through the packing box 42 in the stern of the boat and has connected to the projecting end thereof the propeller 14 while a gear wheel 43 is connected to the inner end thereof and is in mesh with the enlarged gear wheel 38. The propulsion of the boat, it is believed, will be understood from this description.

The steering mechanism includes a steering shaft 44 mounted in bearing supports 45

carried by the bottom wall of the boat and a bearing support 46 carried by the upper end of the crank shaft supporting standard 20, while the steering wheel 47 is carried by the upper end thereof. A wheel 48 is carried by the steering shaft 44 at a position beneath the deck 11 and has wound thereon the propeller rope 49 passing over idlers 50 suitably supported with respect to the boat and connected as at 51 to the transverse arm 52 carried by the rudder 15.

From the above detailed description of the invention, it is believed that the operation thereof will be readily apparent, it being noted that the direction of travel of the boat is controlled by the steering shaft 44 while the same is propelled in a forward or backward direction by the operating mechanism above described. When it is desired to remove the hands from the handle levers 33, the boat may be continued in a like direction of movement by operating the foot blocks 28 while the fly-wheel 39 will add momentum to the driving mechanism and cause the boat to operate in a more efficient and smooth manner.

What I claim as new is:—

A self-propelled boat comprising a hull, a crank shaft journaled transversely of the hull, a beveled gear carried by said crank shaft, a driven shaft, a propeller shaft and propeller carried thereby, operative connections between the propeller shaft and driven shaft and between the driven shaft and beveled gear, slotted guide racks, slide blocks mounted in said guide racks, transverse rods carried by the blocks and extending laterally thereof, pitmen connecting the crank shafts and the rods, hand levers pivotally mounted in the boat and having slotted lower ends received on the lateral extensions of said rods whereby the blocks may be reciprocated by hand and foot.

In testimony whereof I affix my signature.

JOSEPH ABRAMSKI.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."