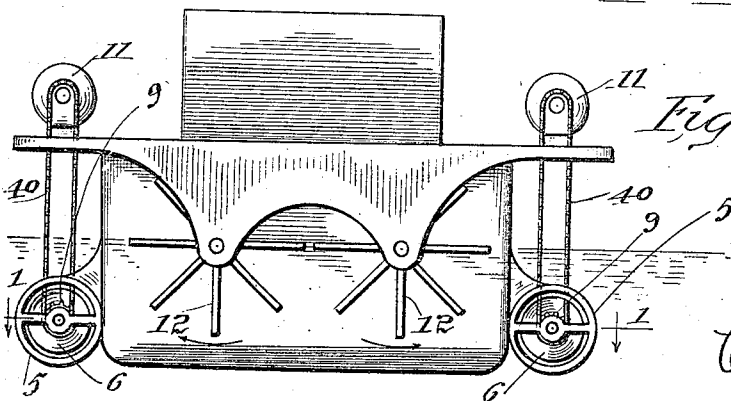
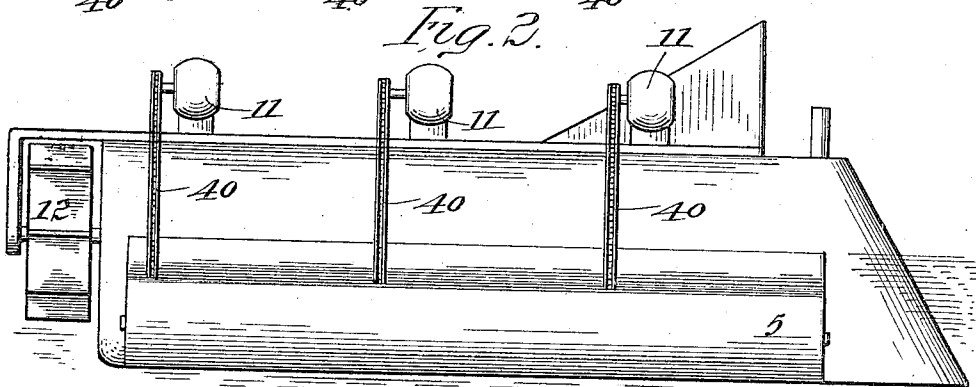
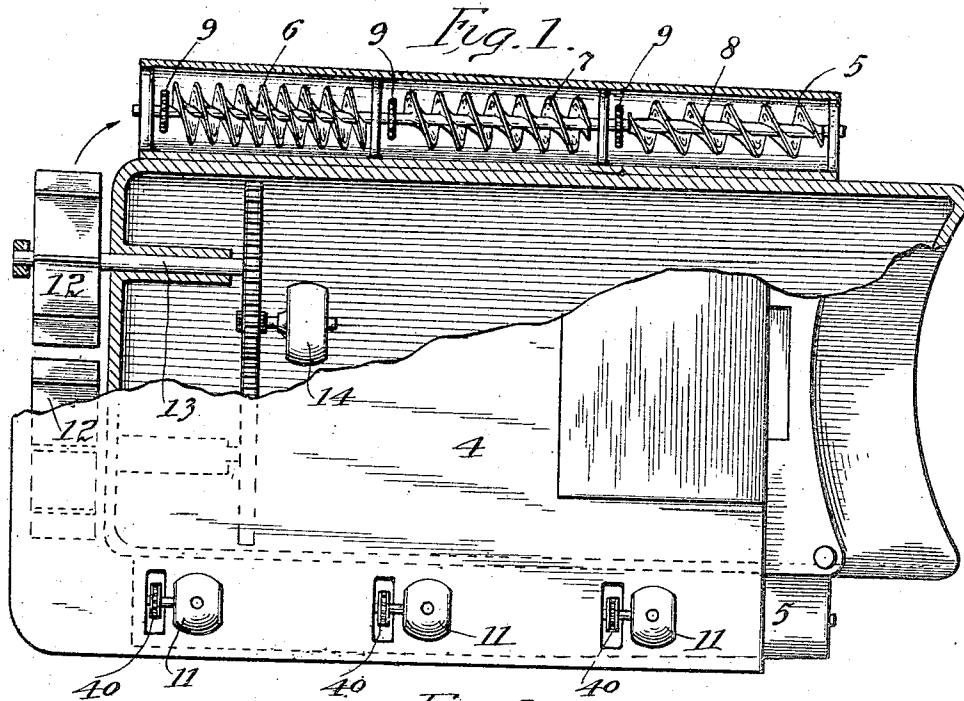


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C. J. BAER.
BOAT.
FILED SEPT. 13, 1919.

1,445,467.



Inventor
Carl J. Baer

UNITED STATES PATENT OFFICE.

CARL J. BAER, OF RIVERSIDE, ILLINOIS.

BOAT.

Application filed September 13, 1919. Serial No. 323,471.

To all whom it may concern:

Be it known that I, CARL J. BAER, a citizen of the United States, and a resident of Riverside, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Boats, of which the following is a specification.

The invention relates to improvements in means for propelling boats through the water and has for its object the provision of improved boat propelling means, by means of which boats may be propelled through shallow water with a minimum expenditure of energy.

The invention consists in the combinations and arrangements of parts hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawings forming a part of this specification and in which:

Fig. 1 is a top plan view shown partially in section of a boat embodying the invention; the section being taken on line 1—1 of Fig. 3;

Fig. 2 is a side view of the same—and Fig. 3 is an end view of the same.

The preferred form of construction as illustrated in the drawings, comprises a boat body, 4, of any usual or desired construction and having tubes, 5, arranged along the opposite side thereof, below the water line. A series of worm propellers, 6, 7, and 8, is arranged in each of the tubes, 5, each propeller section being mounted to operate independently of the other and equipped with a suitable driving sprocket for this purpose. Each of the sprockets, 9, is connected by a sprocket chain, 40, and a corresponding motor, 11, mounted on the deck of the boat, suitable openings being provided as indicated for the passage of these chains, and whereby the various worm propeller sections may be operated independently of each other. The worm section, 7, is of somewhat greater pitch than the worm section 6, and the worm section, 8, is of somewhat greater pitch than the worm section, 7, so that as velocity of movement is added to the stream of water passing through the corresponding tube, 5, the speed of thrust of the worm sections is correspondingly increased so as to compensate therefor, thus obtaining an effective thrust on the water stream throughout all portions of the propellers, and greatly increasing the velocity

of the water discharge. The internal bores of the tubes, 5, are correspondingly decreased to compensate for the increase in velocity and prevent the formation of a vacuum. In this way, a simple and effective means is provided for propelling boats through shallow water.

To further facilitate the propulsion of the boat, I arrange two oppositely acting paddle wheels, 12, at the bow or front portion of the boat; said paddle wheels being only partially submerged and mounted on suitable propeller shafts, 13, extending through the bow of the boat, as shown. The paddle wheels, 12, are connected as shown, to be driven in opposite directions by an electric motor, 14. By this arrangement, it will be observed that the water normally resting in front of the bow of the boat, will be constantly and positively displaced laterally and outwardly to make space for the passage of the boat through the water and to supply the additional water necessary for the effective operation of the propeller sections, 6, 7, and 8.

While I have illustrated and described the preferred form of construction for carrying my invention into effect, this is capable of variation and modification without departing from the spirit of the invention; I, therefore, do not wish to be limited to the precise details of construction set forth, but desire to avail myself of such variations and modifications as come within the scope of the appended claims.

Having thus fully illustrated and described my invention, what I claim to be new and desire to secure by Letters Patent is:

1. A boat-like body provided with an open-ended housing at each side thereof, a plurality of propelling members arranged in alignment in each housing, each member being of greater thrust than the preceding member, and means carried by the body and adapted to furnish a constant supply of water to said housings.

2. A boat-like body provided with an open-ended housing at each side thereof, a plurality of worm propellers arranged in alignment in each housing, each member being of greater pitch than the preceding member and means rotatably mounted adjacent the front end of each housing, and adapted to force a constant supply of water to the front end of said housings.

3. A boat-like body provided with an open-ended housing at each side thereof, a plurality of worm propellers arranged in alignment in each housing, each propeller
5 being of greater pitch than the preceding propeller, means for operating each propeller independently, and means adjacent the front end of each housing, adapted to force a constant supply of water thereto.

CARL J. BAER.

Witnesses:

WALTER J. WARE,
CHAS. A. BEATY.