

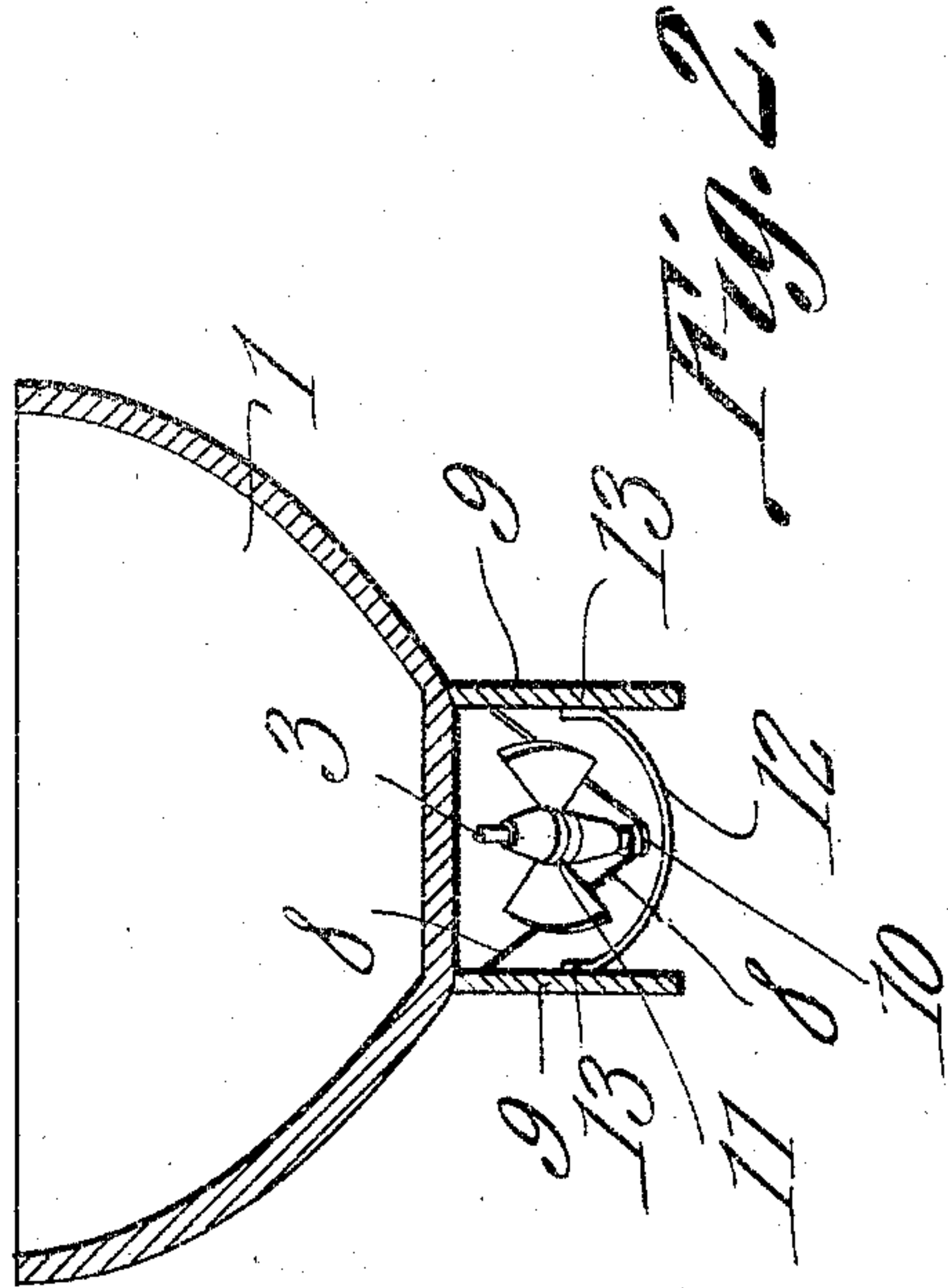
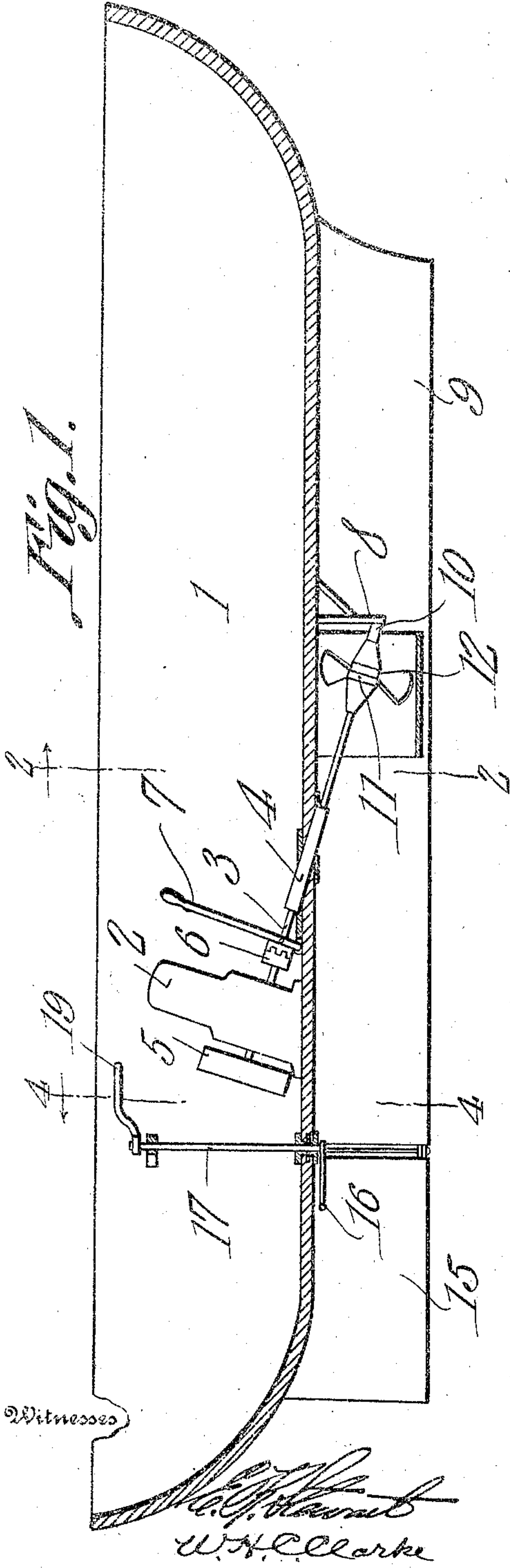
C. J. LINDGREN.
BOAT.

APPLICATION FILED MAR. 4, 1910.

985,187.

Patented Feb. 28, 1911.

2 SHEETS-SHEET 1.



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2 SHEETS—SHEET 2.

Fig. 3.

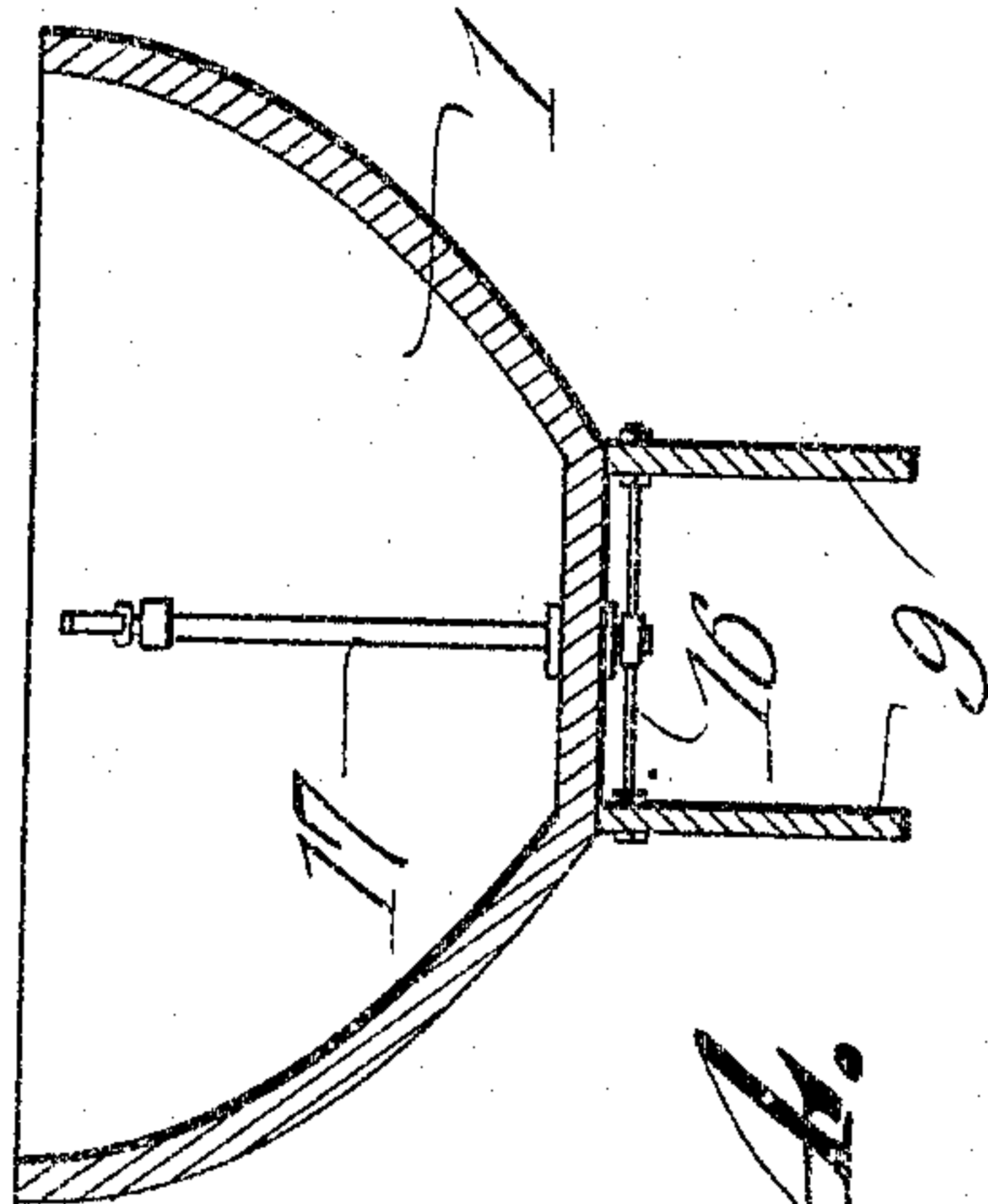
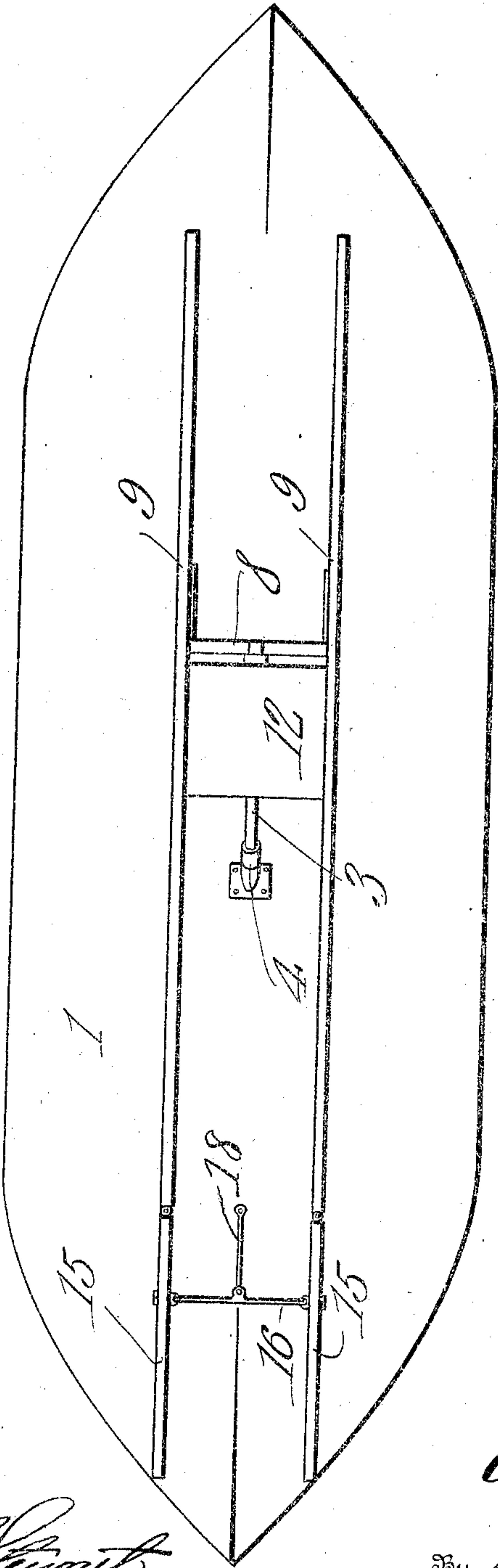


Fig. 4.

Witnesses

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UNITED STATES PATENT OFFICE.

CARL JOHAN LINDGREN, OF WARREN, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO
ALFRED LARSON, OF WARREN, PENNSYLVANIA.

BOAT.

985,187.

Specification of Letters Patent.

Patented Feb. 28, 1911.

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To all whom it may concern:

Be it known that I, CARL J. LINDGREN, a citizen of the United States, residing at Warren, in the county of Warren and State of Pennsylvania, have invented a new and useful Boat, of which the following is a specification.

This invention relates generally to boats, and more particularly to power propelled boats.

The objects of the invention are to improve and simplify the construction of such devices as well as to increase their efficiency in use and to decrease the expense attending their manufacture.

A further object of the invention is to construct a boat of the character specified adapted to be run in either direction with equal facility, and accordingly to be reversed or stopped with ease.

A further object of the invention is to construct a boat which is steady and difficult to tip, thereby rendering the boat safe in use.

A further object of the invention is to improve the steering devices of the boat.

A further object of the invention is to provide improved means for protecting the propeller and for increasing its efficiency.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of invention herein disclosed can be made within the scope of the claims without departing from the spirit of the invention.

In the accompanying drawings forming part of this specification,—Figure 1 is a vertical longitudinal section through a boat constructed in accordance with the present invention, the engine and propeller being shown in elevation. Fig. 2 is a transverse vertical section on the line 2—2 of Fig. 1, looking in the direction of the arrow. Fig. 3 is an under plan view of a boat constructed in accordance with the invention. Fig. 4 is a transverse vertical section on the line 4—4 of Fig. 1 looking in the direction of the arrow.

Like reference numerals indicate corresponding parts in the different figures of the drawings.

The boat of the present invention, preferably, is constructed with a body portion 1 which is double-ended or pointed at both ends in order that it may run with equal facility in either direction. The engine 2, which may be of any suitable form and construction, not necessary to be specifically illustrated herein, preferably, is located adjacent one end of the body portion 1, as indicated clearly in Fig. 1. The propeller shaft 3 which is suitably connected with engine 2, extends on a downward incline from the end of the boat in which the engine is located toward the central portion of the boat, as clearly indicated. The propeller shaft 3 extends through a suitable water tight bearing or bushing 4 mounted in the bottom of the boat, and is provided with the usual balance wheel 5 and is adapted, by means of a clutch 6 to be coupled with or uncoupled from the engine 2 through the medium of the controlling lever 7. The propeller shaft 3, at its lower end, preferably terminates about midway of the length of the boat and is journaled in a socket carried by a bracket 8 connected with the pair of parallel keels 9 which are secured to the bottom of the boat.

The shaft 3 is provided with a propeller 11 which is partially surrounded or incased by a casing 12 which is secured at 13 in any suitable manner to the parallel keels 9, the ends of the casing 12 being preferably secured to the keels 9 at a point above the lower edges of said keels, and being so arranged that the lower portion of the casing is approximately on the same level, or a level slightly above that of the keels 9, whereby said keels serve to protect the casing 12, in the event that the boat should run ashore, and the casing 12 in turn serves to protect the propeller 11, as well as to increase the efficiency thereof, and also to act as a brake, in the event that the propeller is stopped, the action in that case being that the propeller materially interferes with the passage of water through the casing 12, so as to act as a drag on the boat. It will be apparent that the propeller 11 can be rotated in either direction to propel the boat either forward or backward.

The means for steering the boat, preferably comprises twin rudders 15 each of which is pivotally connected with the end of one of the keels 9. The two rudders are

suitably connected with each other by means of the cross bar 16 which in turn is connected with the crank 18 mounted upon a vertically extending steering post 17 which projects through the bottom of the boat and is provided on its upper end with a tiller 19. The steering post 17 is braced at its upper end in any suitable manner. The steering mechanism described, preferably, is located in the same end of the boat with the engine 2, in order that a single operator may control both the propelling mechanism and the steering mechanism of the boat.

By disposing the propeller of the improved boat adjacent the central portion thereof, the tendency of the propeller, when mounted in the usual manner, to raise one end of the boat slightly out of the water is avoided. Moreover, it has been found in practice, to have many other advantages. It will be apparent, furthermore, that the twin rudders are adapted to control the boat when traveling in either direction, for which reason both the steering mechanism and propelling mechanism of the approved boat are adapted to permit the boat to be operated with facility in both directions.

The boat of the present invention is strong, simple, durable and inexpensive in construction as well as thoroughly efficient in operation.

The improvements herein disclosed are thoroughly adapted to be employed in connection with boats of various sizes, and one

or more propellers may of course be employed.

Having described the invention what is claimed as new is:—

1. A double-ended boat having twin keels, an engine mounted adjacent one end of said boat, a shaft connected with said engine and extending forward and downward on an incline to the central portion of the boat, a propeller mounted on said shaft amidship, a horizontally extending casing surrounding said propeller and being connected with said twin keels, and twin rudders connected with said twin keels.

2. A double-ended boat having twin keels, an engine located adjacent one end of said boat, an inclined propeller shaft connected to said engine and extending forward and downward toward the central portion of the boat, a propeller mounted on said shaft and located between said twin keels, a curved horizontally extending casing surrounding said propeller and being connected with said twin keels, a pair of twin rudders connected to said twin keels, and means located adjacent said engine for controlling said twin rudders.

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

CARL JOHAN LINDGREN.

Witnesses:

ESTHER M. PARK,
JOHN E. WHEELER.