

No. 885,370.

PATENTED APR. 21, 1908.

I. E. PALMER.
HULL OF VESSELS.
APPLICATION FILED JAN. 11, 1907.

2 SHEETS—SHEET 1.

Fig. 1.

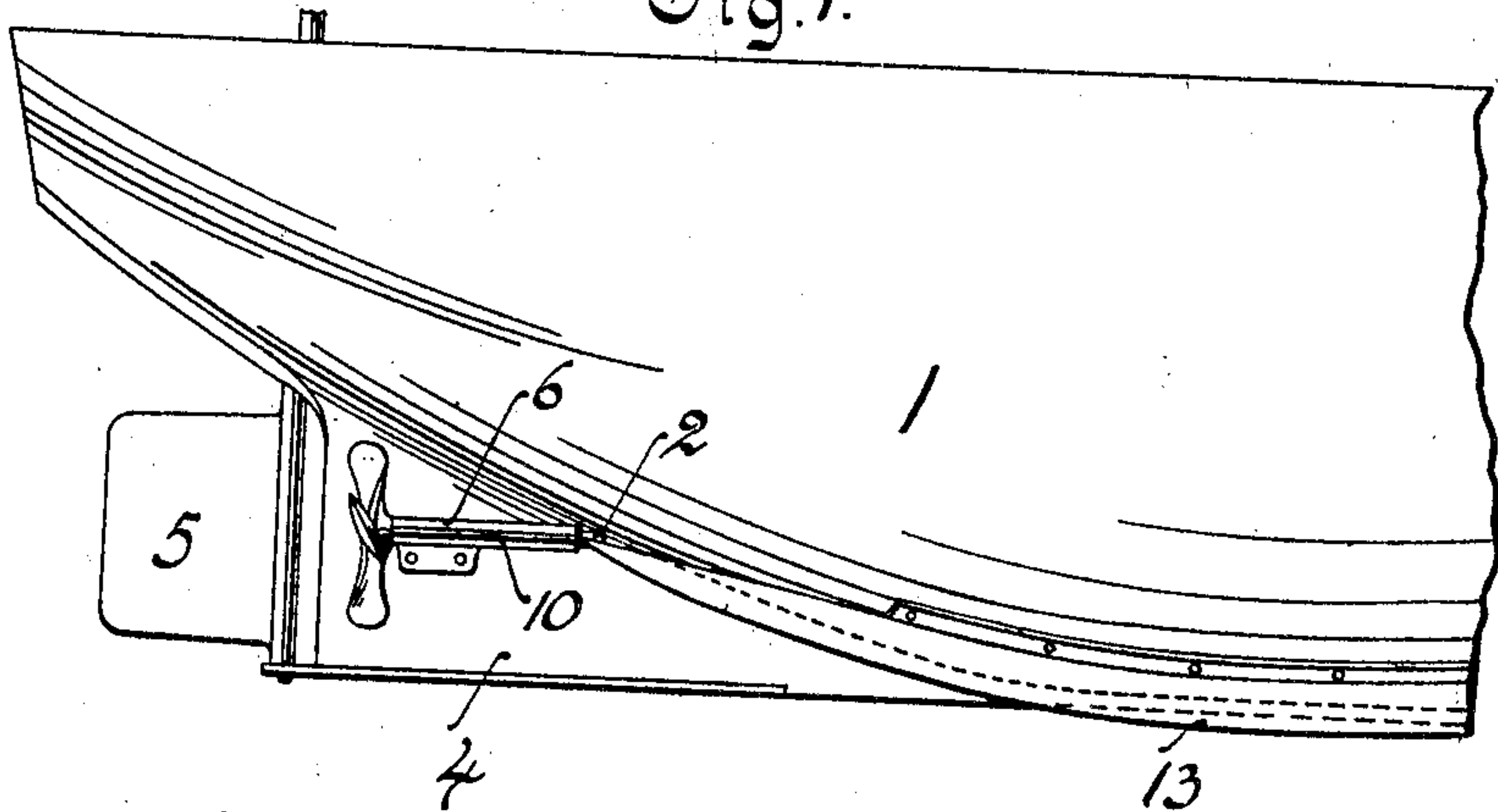


Fig. 2.

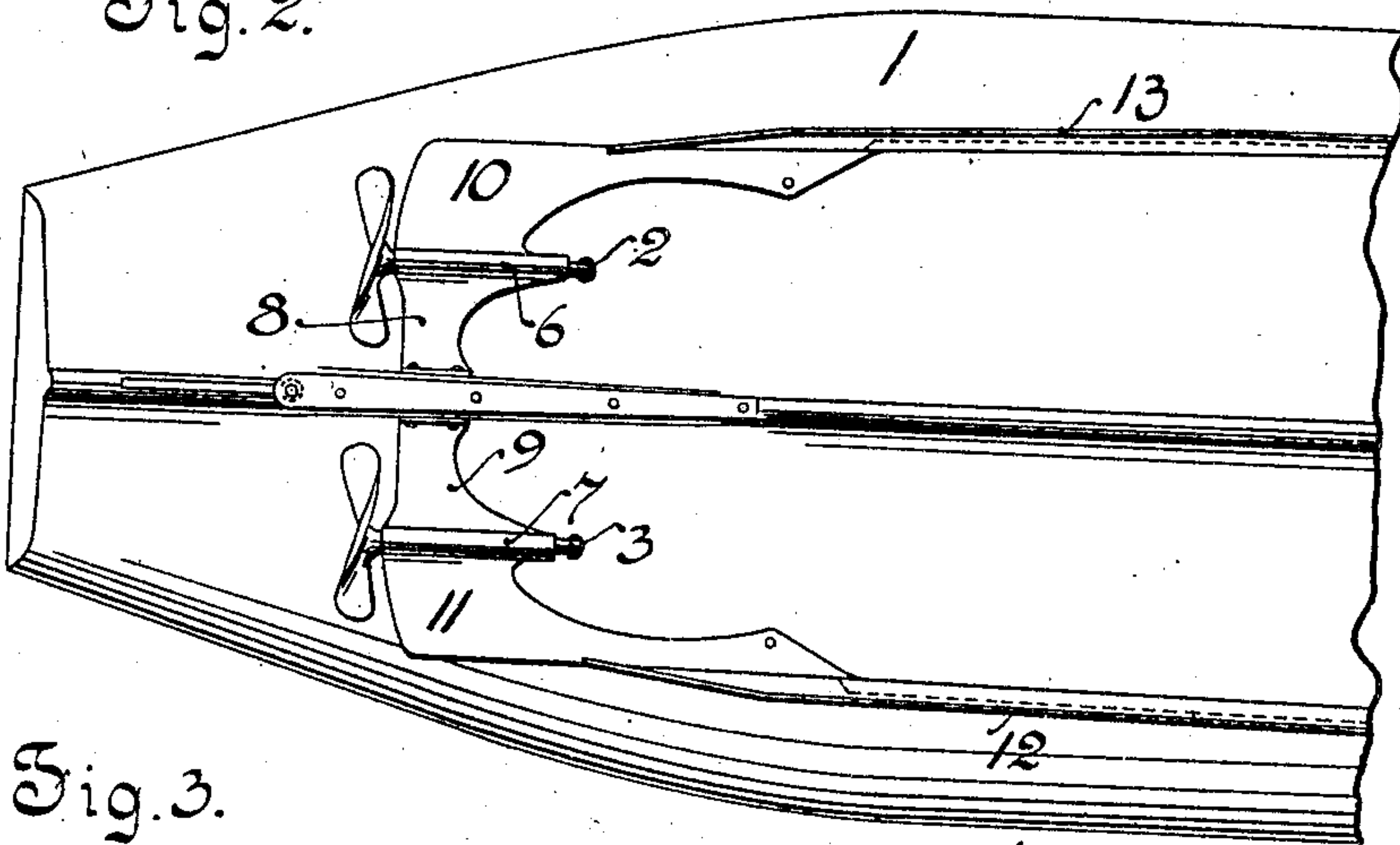


Fig. 3.

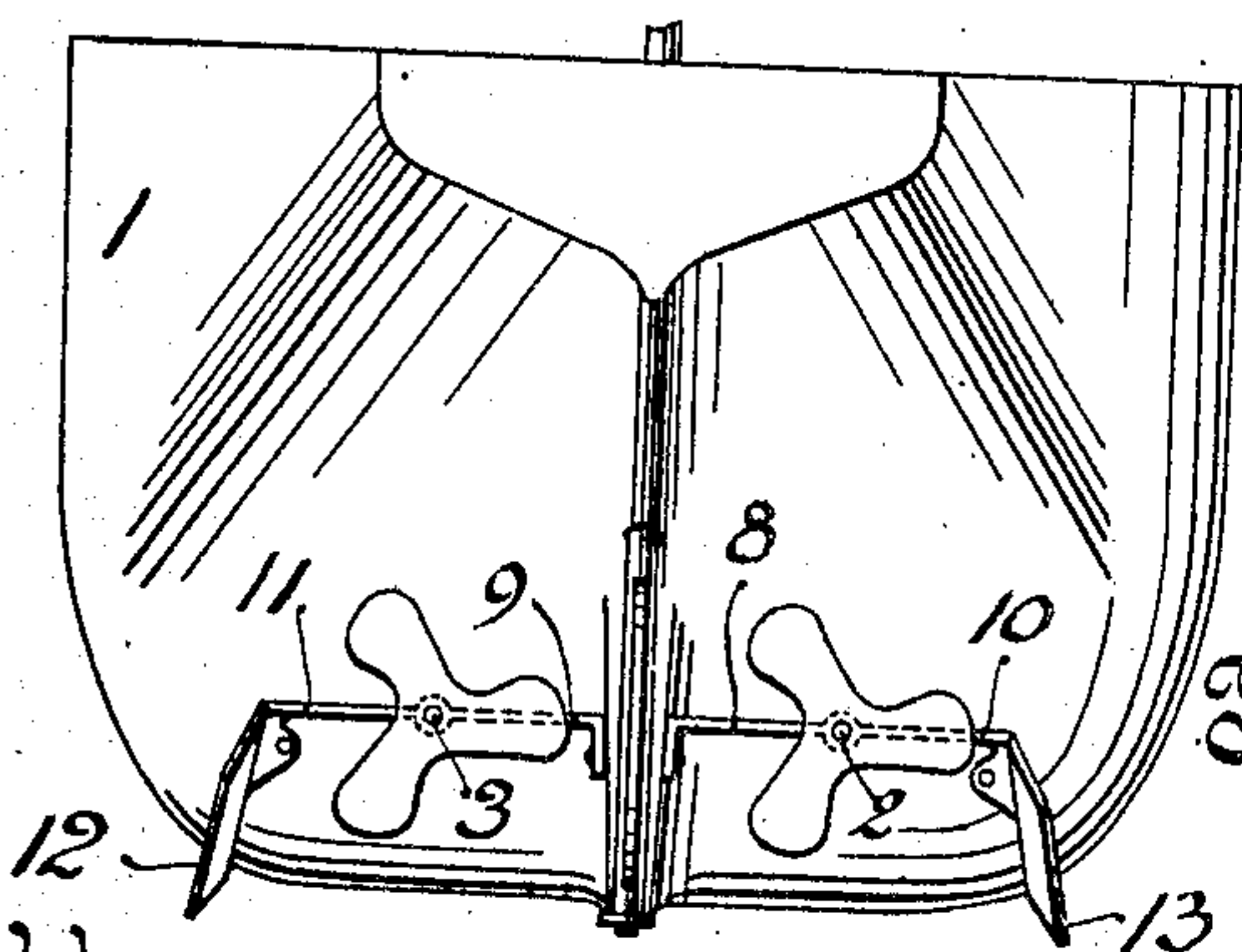


Fig. 4.

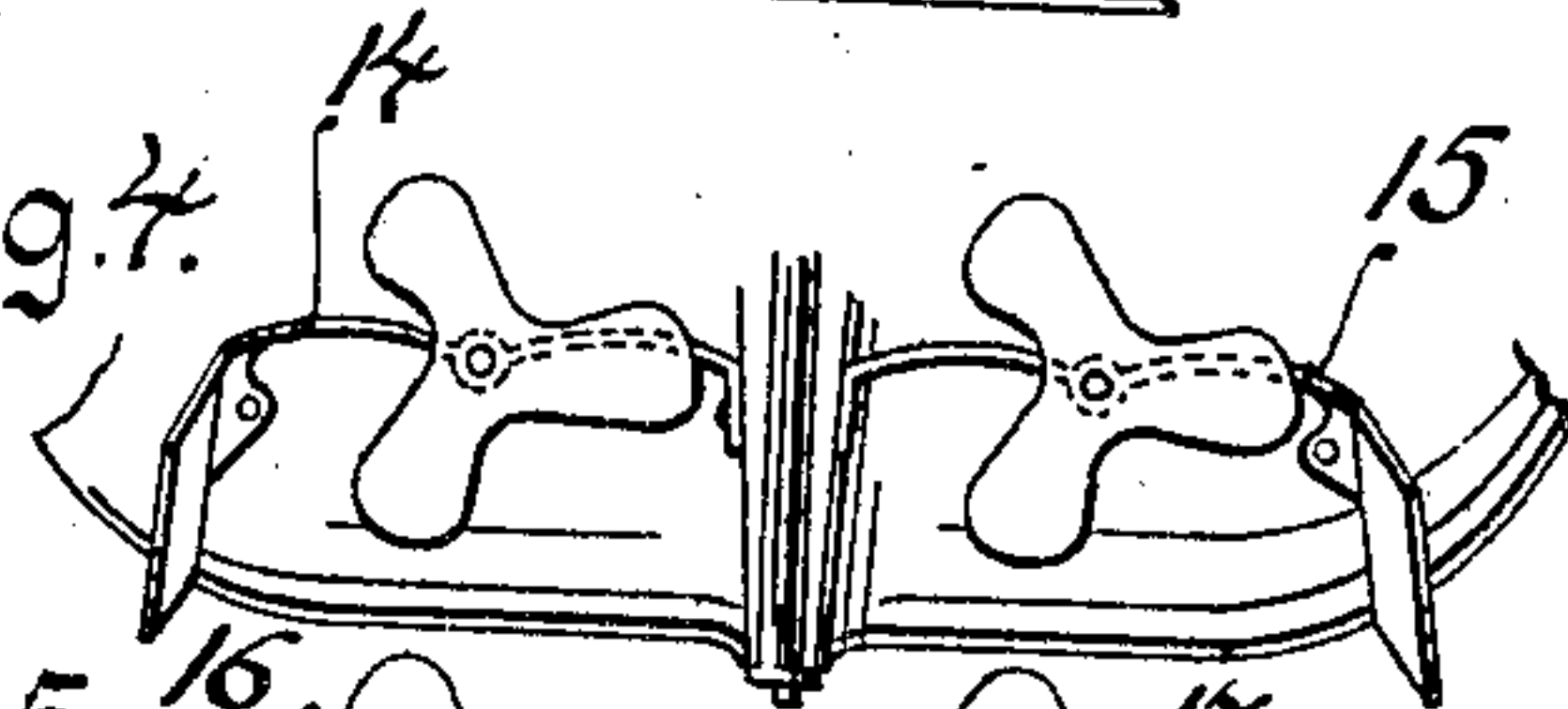


Fig. 5.

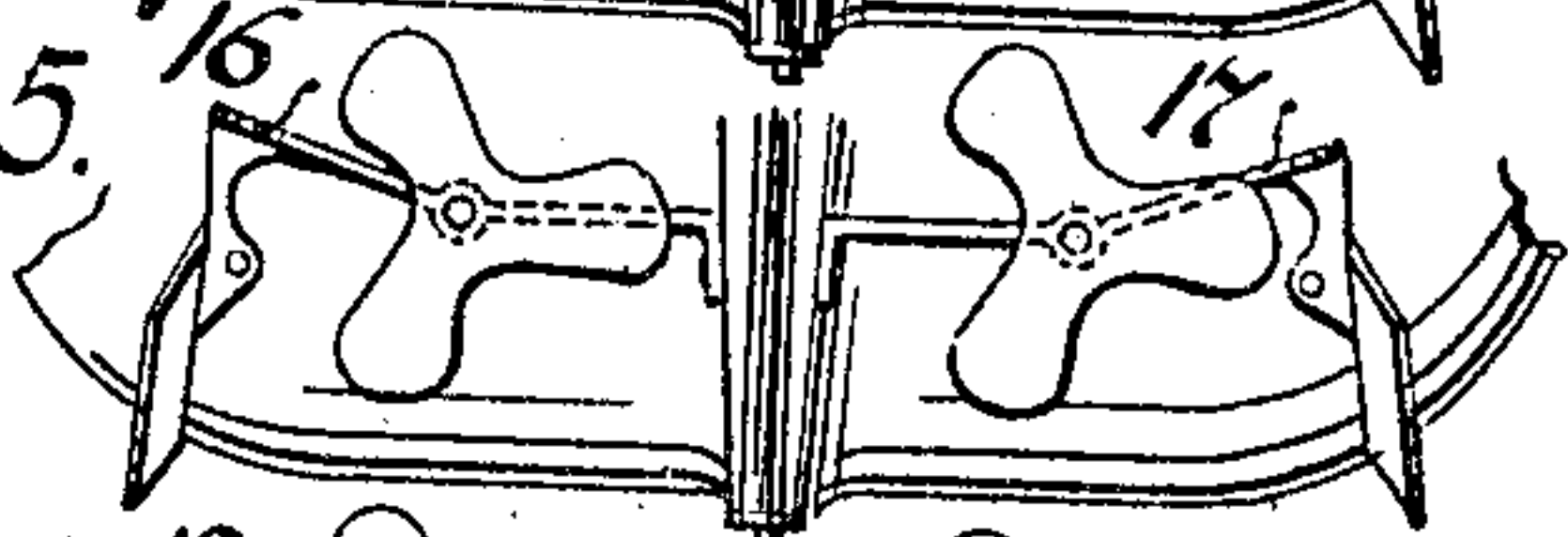
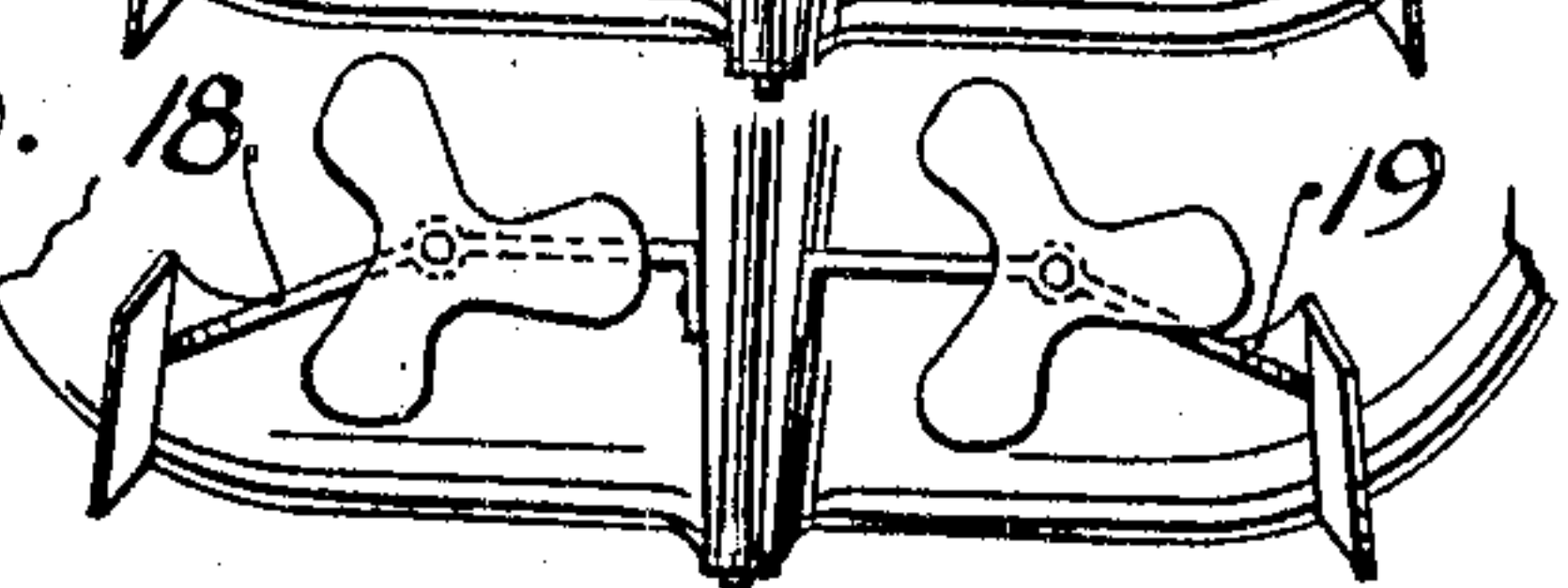


Fig. 6.



Witnesses:
M. H. Brown.
Henry Thiem.

Inventor
Isaac E. Palmer
By his Attorneys
Brown & Ward

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2 SHEETS—SHEET 2.

Fig. 7.

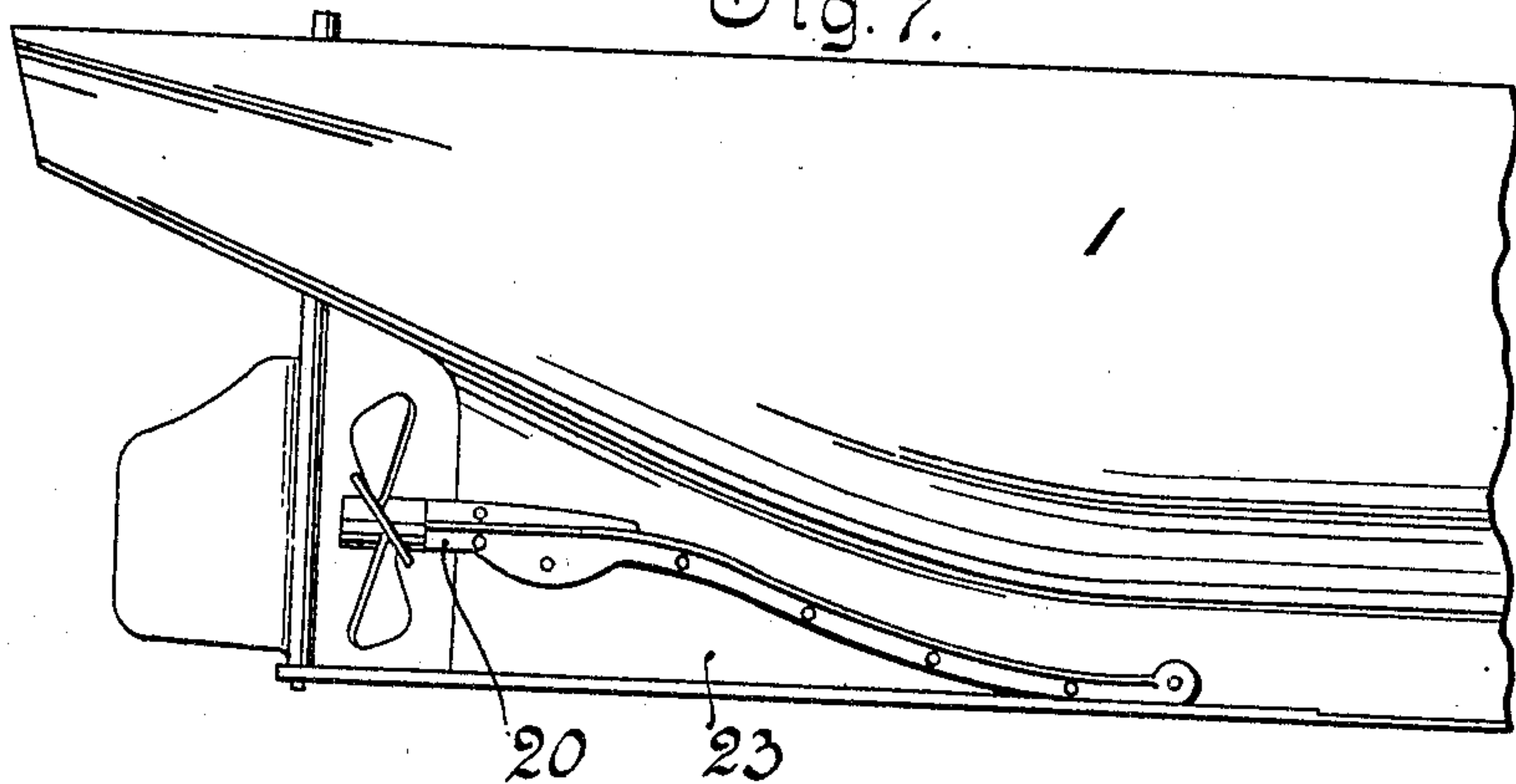


Fig. 8.

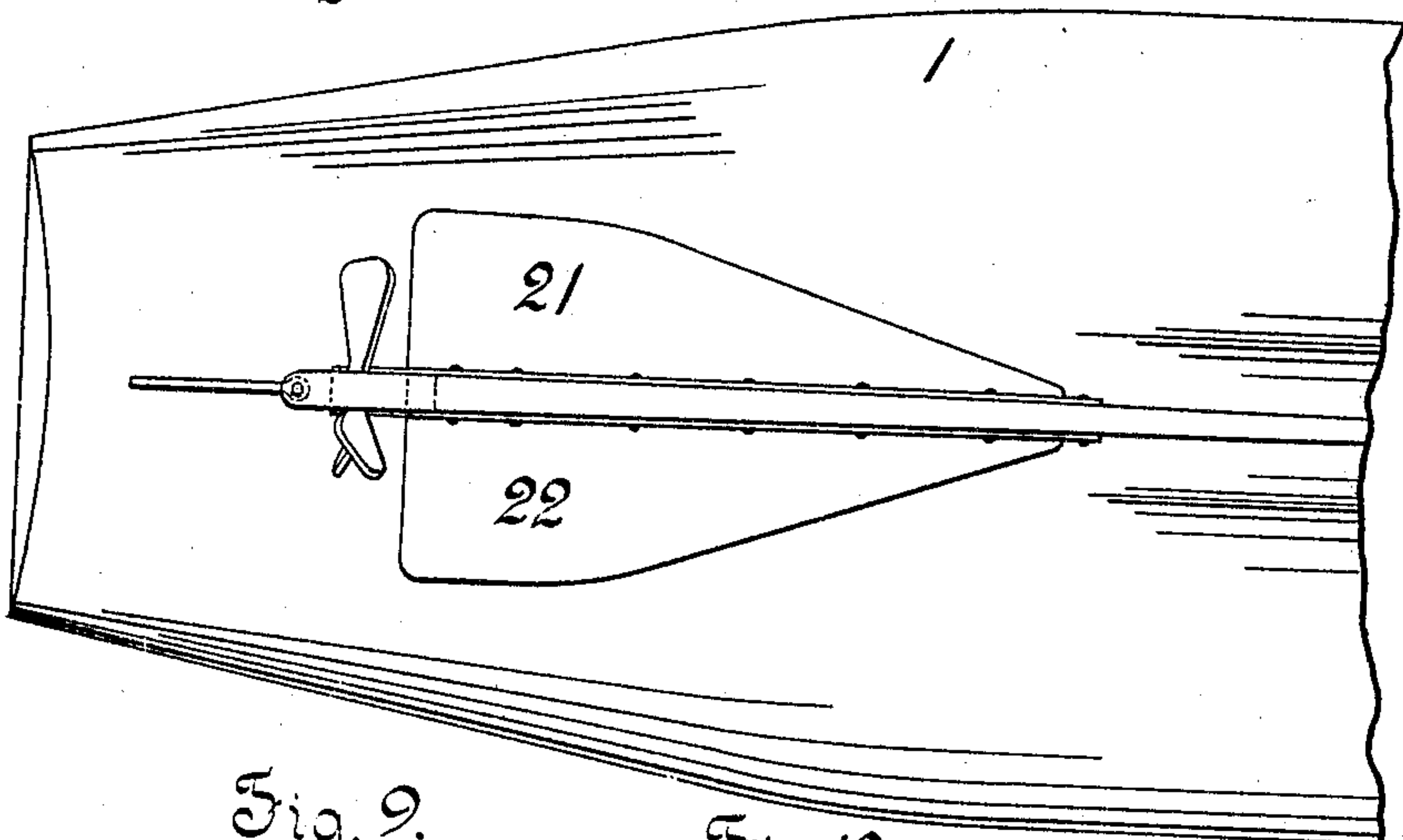


Fig. 9.

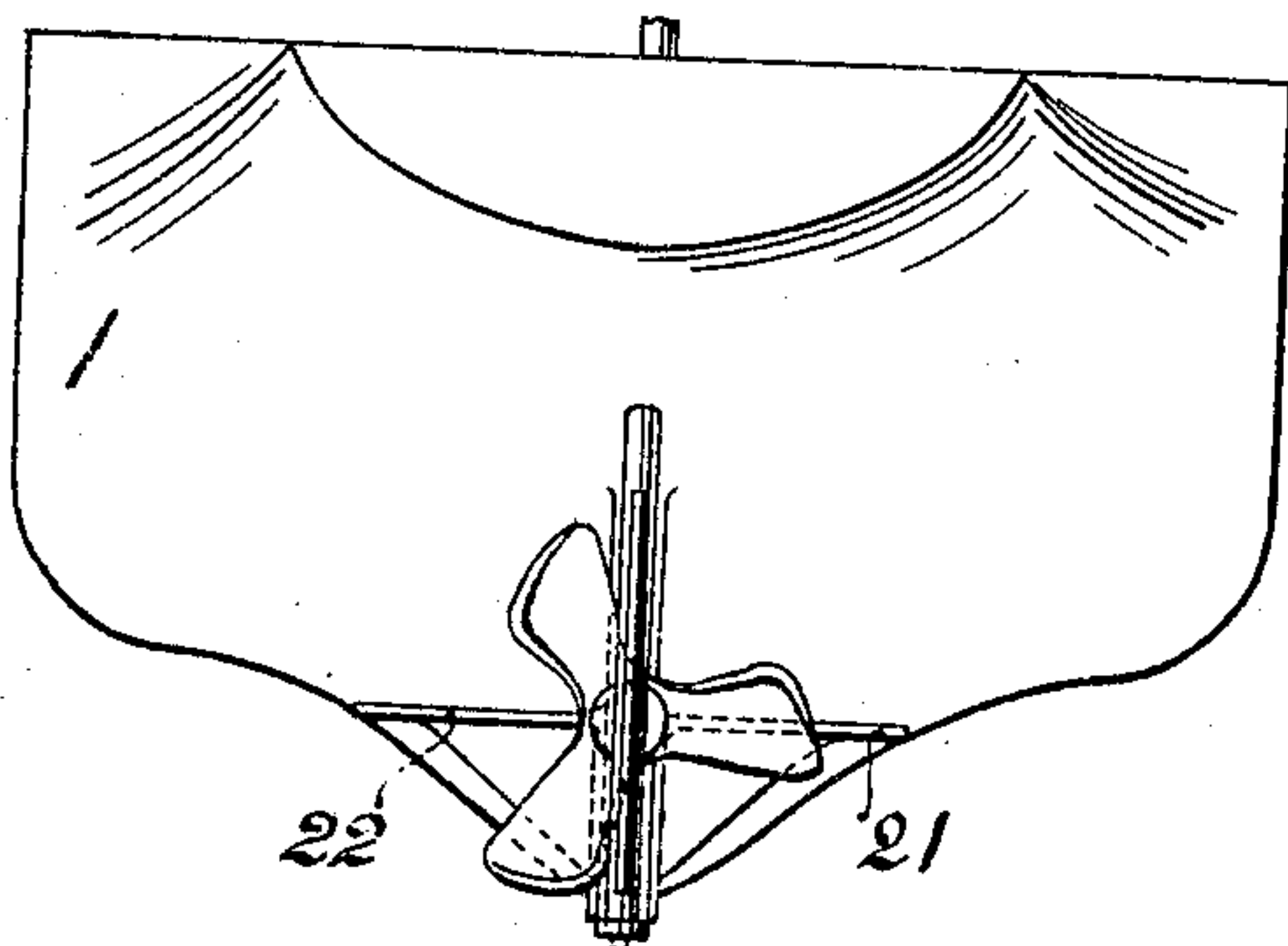


Fig. 10.

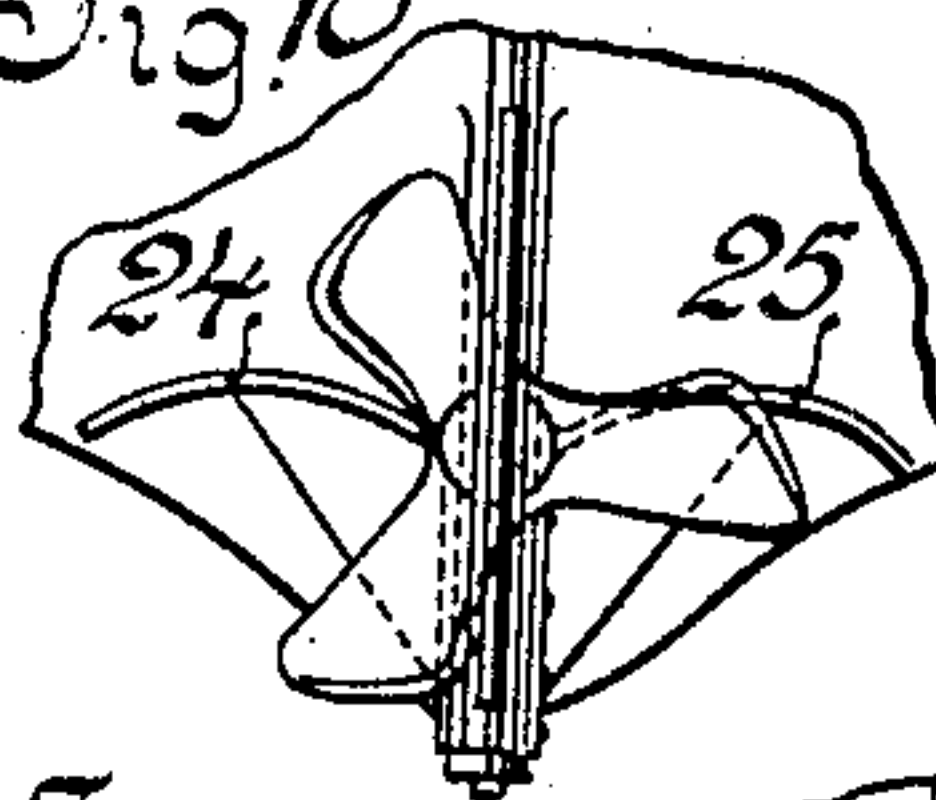


Fig. 11.

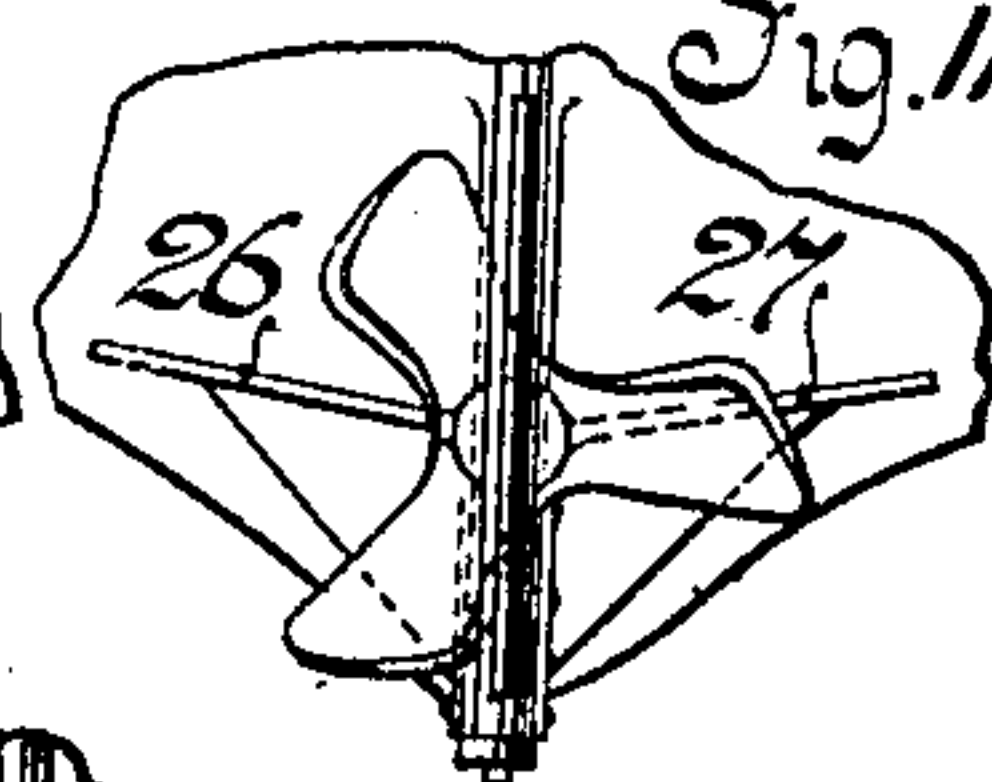
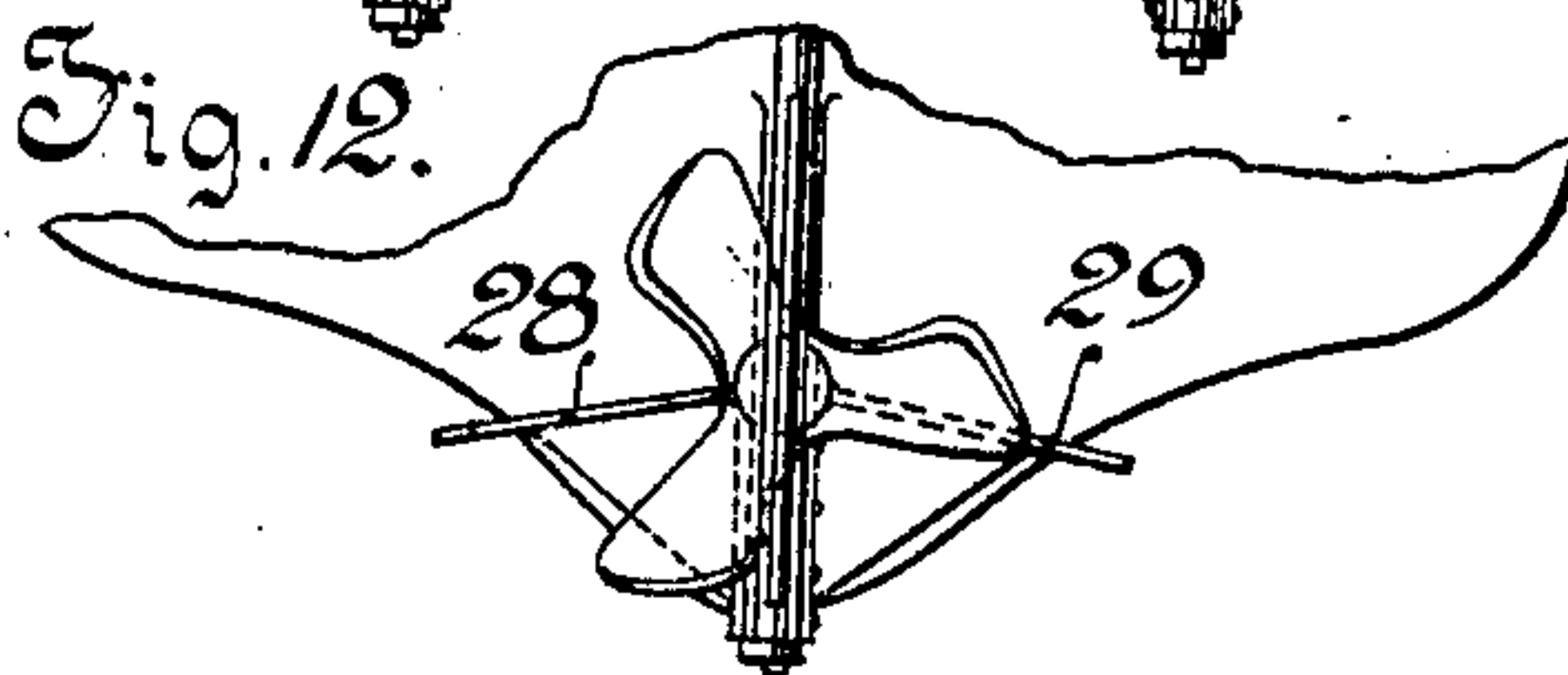


Fig. 12.



Witnesses:
Isaac Brown.
Henry Shiering.

Inventor
Isaac E. Palmer
By his Attorneys
Brown & Shiering

UNITED STATES PATENT OFFICE.

ISAAC E. PALMER, OF MIDDLETOWN, CONNECTICUT.

HULL OF VESSELS.

No. 885,370.

Specification of Letters Patent.

Patented April 21, 1908.

Application filed January 11, 1907. Serial No. 351,786.

To all whom it may concern:

Be it known that I, ISAAC E. PALMER, a citizen of the United States, and resident of Middletown, in the county of Middlesex and State of Connecticut, have invented a new and useful Improvement in Hulls of Vessels, of which the following is a specification.

My invention relates to hulls of vessels and more particularly to the hulls of power vessels, with the object in view of providing means for preventing the squatting, pitching and rolling of the hull when under way.

In the accompanying drawings, Figure 1 is a partial view in side elevation of a hull provided with twin screws, Fig. 2 is a bottom plan view of the same, Fig. 3 is a stern view of the same, Figs. 4, 5 and 6 represent partial stern views showing modified forms of the invention, Fig. 7 is a partial view in side elevation of the hull of a vessel provided with a single screw, Fig. 8 is a bottom plan view of the same, Fig. 9 is a stern view of the same, and Figs. 10, 11 and 12 are partial stern views representing modified forms of the invention.

The gist of the invention is the extension of fins on opposite sides of the shaft at or near the shaft bearing under the stern of the vessel whether these fins originate at their forward ends in the bilge of the vessel or whether they are extensions of bilge keels. In either event, they are intended to follow the natural wave line until they leave the body of the boat and to extend thence on opposite sides of the shaft bearing in such planes and such forms as will form a natural resistance to the rise and fall of the stern and also a direct resistance to the rocking of the hull.

Where a double screw is employed, as shown in Figs. 1 to 6 inclusive, the hull is denoted by 1, the propeller shafts by 2 and 3, the skeg by 4 and the rudder by 5. The bearings for the propeller shafts 2 and 3 are denoted by 6 and 7 and are fixed to the skeg by means of brackets 8 and 9 which project laterally in opposite directions from the skeg and from these bearings 6 and 7 extend outwardly in opposite directions fins 10 and 11. These fins are shown in these figures as fixed to and forming extensions of the bilge keels 12 and 13, respectively, and said fins are projected in substantially horizontal planes from the shaft bearings. The question of how far they shall extend is one to be determined by careful experiment, the proportions shown in the drawings being such as

have proved in practice to be highly efficient. Instead of extending these fins in horizontal forms from the shaft bearing, they may be extended in curved form as shown at 14, 15, Fig. 4, or they may have a slight upward incline, as shown at 16, 17, Fig. 5, or a downward inclination as shown at 18, 19, Fig. 6, it being understood that these are only some of the forms contemplated by my invention that these fins may take and prove efficient.

In the form shown in Figs. 7 to 12, inclusive, a single screw shaft is employed mounted in a bearing 20 from the opposite sides of which extend fins 21, 22, which fins gradually decrease in width as they extend forwardly and finally vanish in the opposite sides of the keel to which and the skeg 23 they are secured as well as to the opposite sides of the bearing 20.

As shown in Figs. 7, 8 and 9, these fins 21, 22, extend in horizontal planes on the opposite sides of the shaft bearing but they may assume other forms, for example, the curved form shown at 24, 25, Fig. 10, the upward incline as shown at 26 and 27, Fig. 11, or the downward incline as shown at 28, 29, Fig. 12. These fins projected from the shaft bearings may be employed as shown in the accompanying drawings or in connection with a hood projected over the top of the wheel as shown in my Patent No. 807769, granted December 19, 1905.

What I claim is:—

1. The combination with the hull of a vessel provided with a shaft bearing and a skeg to which the bearing is secured, of fins secured to the skeg and extending outwardly in opposite directions beyond the shaft bearing.

2. The combination with the hull of a vessel provided with a skeg and a plurality of shaft bearings fixed to the skeg, of fins fixed to and projecting outwardly from the said shaft bearings.

3. The combination with the hull of a vessel provided with a shaft bearing and bilge keels, of fins projecting in opposite directions from the shaft bearing and forming an extension of the bilge keels.

In testimony, that I claim the foregoing as my invention, I have signed my name in presence of two witnesses, this ninth day of January, 1907.

ISAAC E. PALMER.

Witnesses:

CHAS. M. SAUER,
FREDK. N. CONOVER