

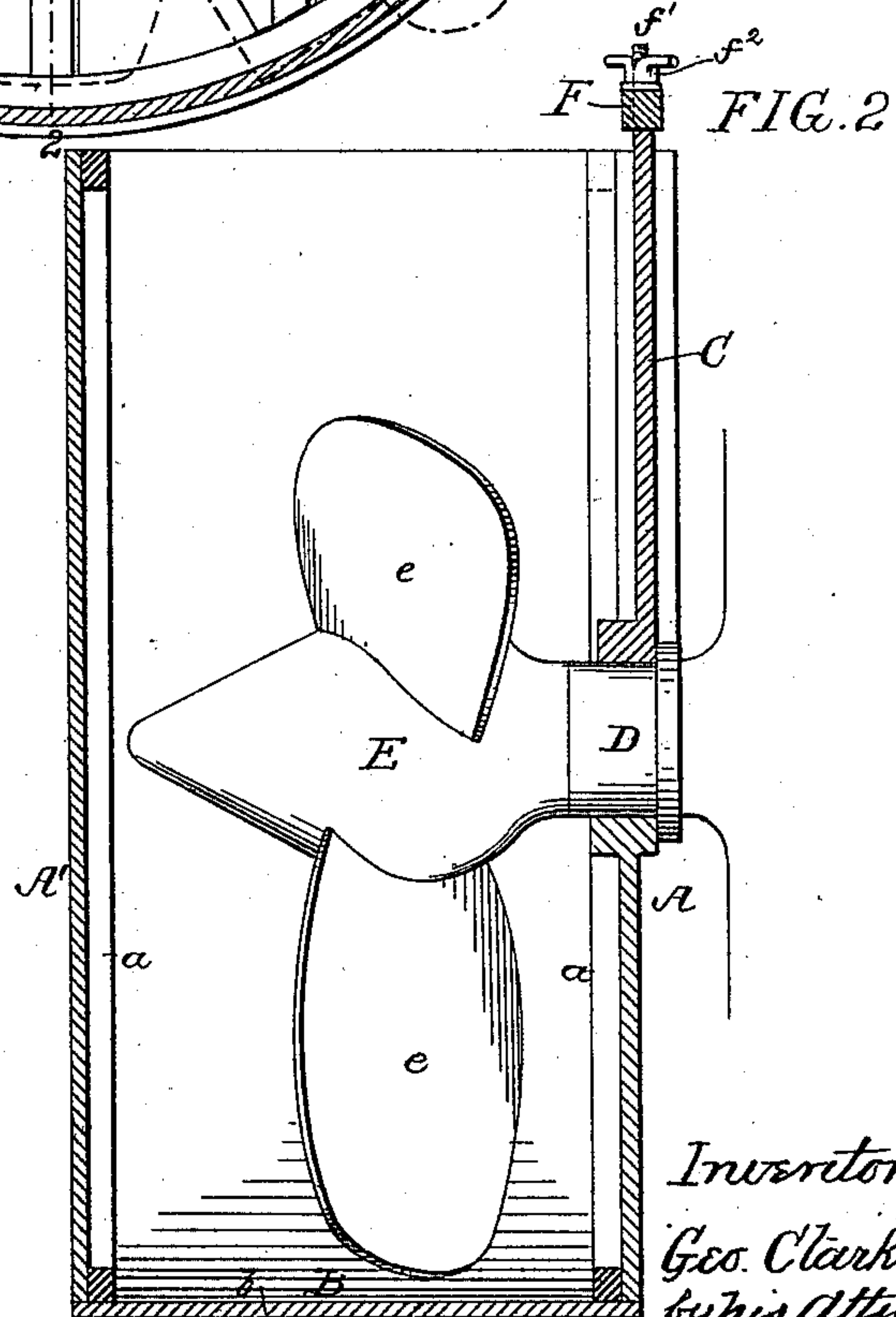
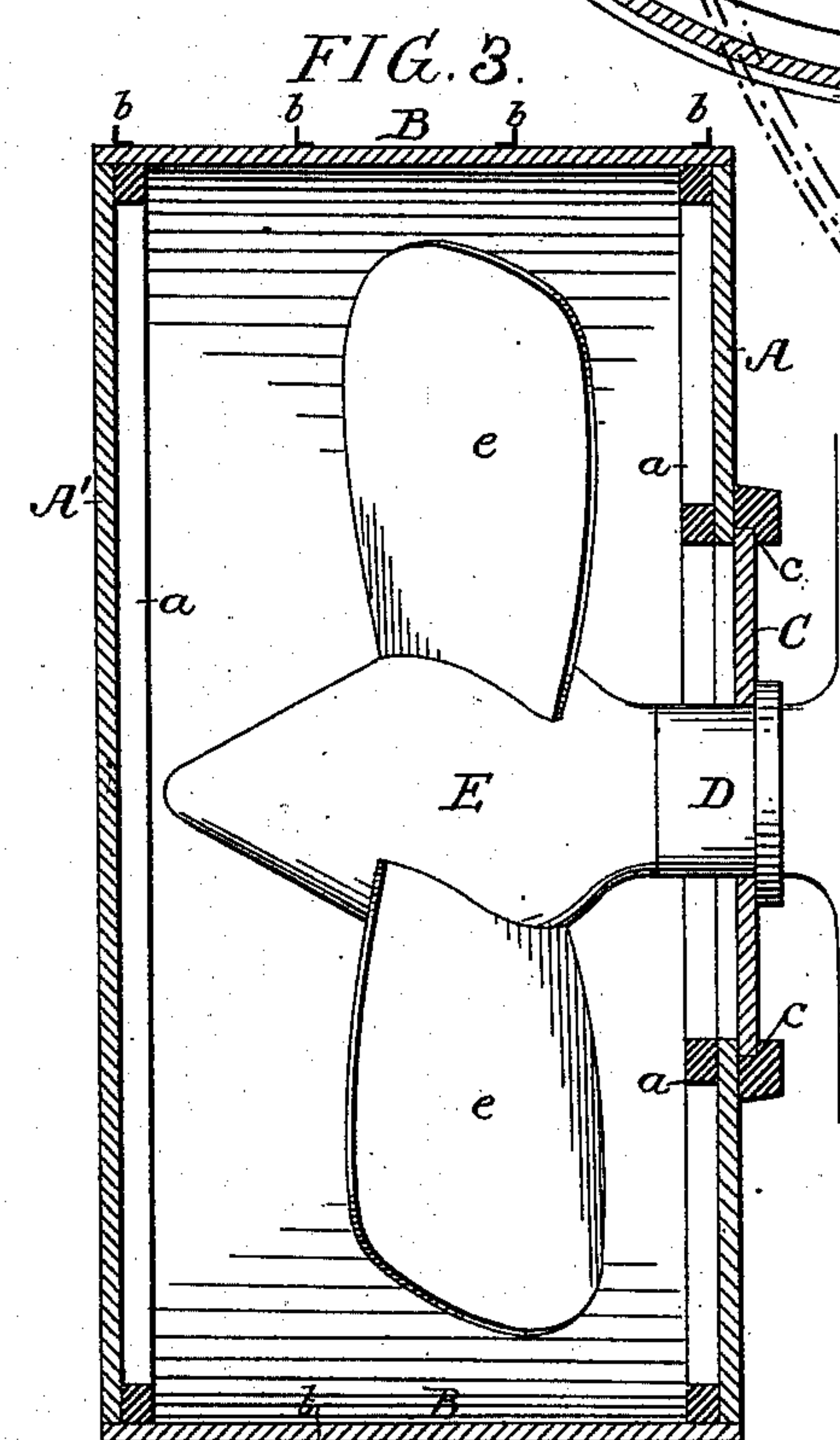
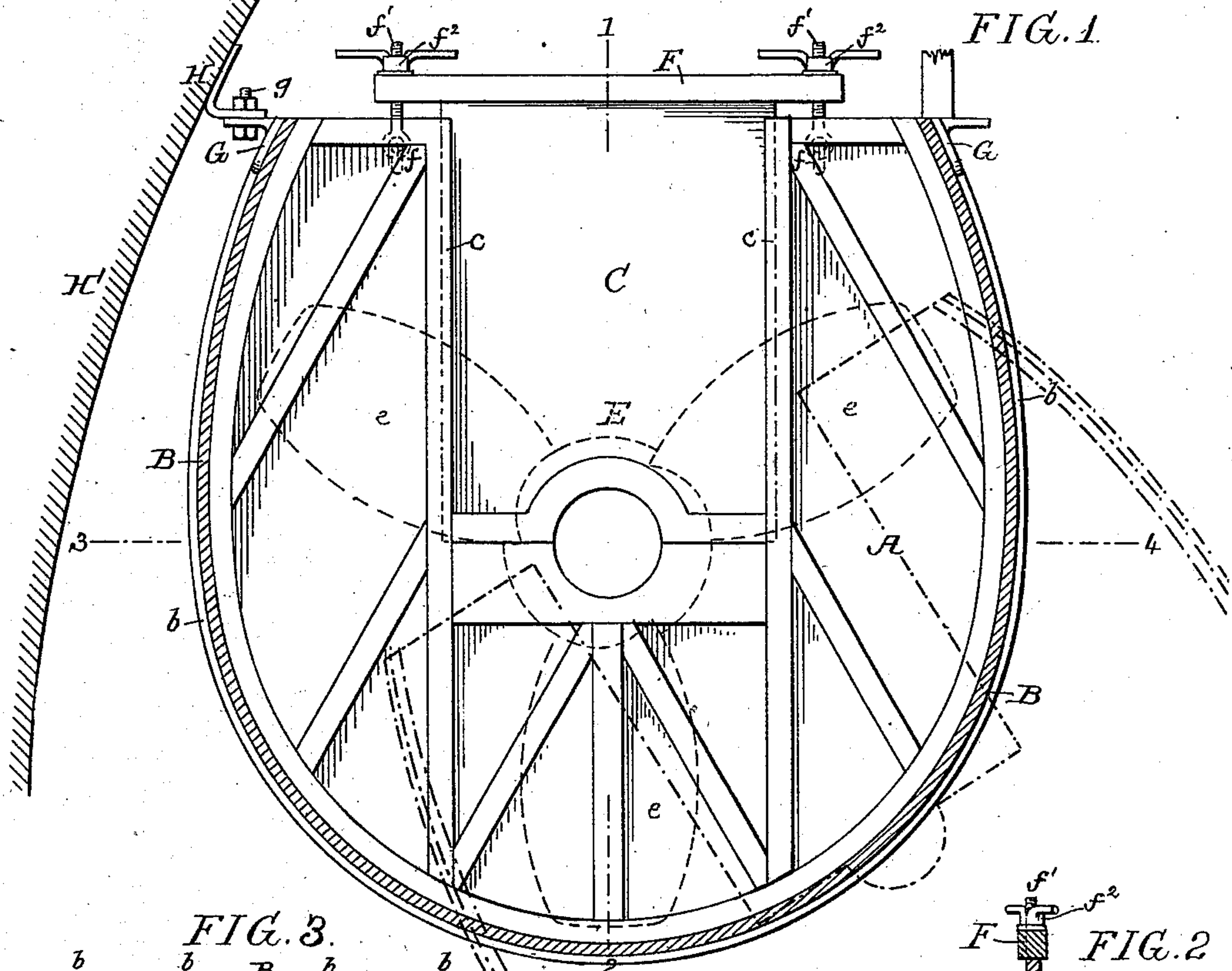
(No Model.)

2 Sheets—Sheet 1.

G. CLARKE.  
PROPELLER DAM.

No. 412,697.

Patented Oct. 8, 1889.



Witnesses: } Albert Popkine,  
                  } Jas. L. Skidmore

Inventor:  
Geo. Clarke  
by his attys.  
Howson & Howson

(No Model.)

2 Sheets—Sheet 2.

G. CLARKE.  
PROPELLER DAM.

No. 412,697.

Patented Oct. 8, 1889.

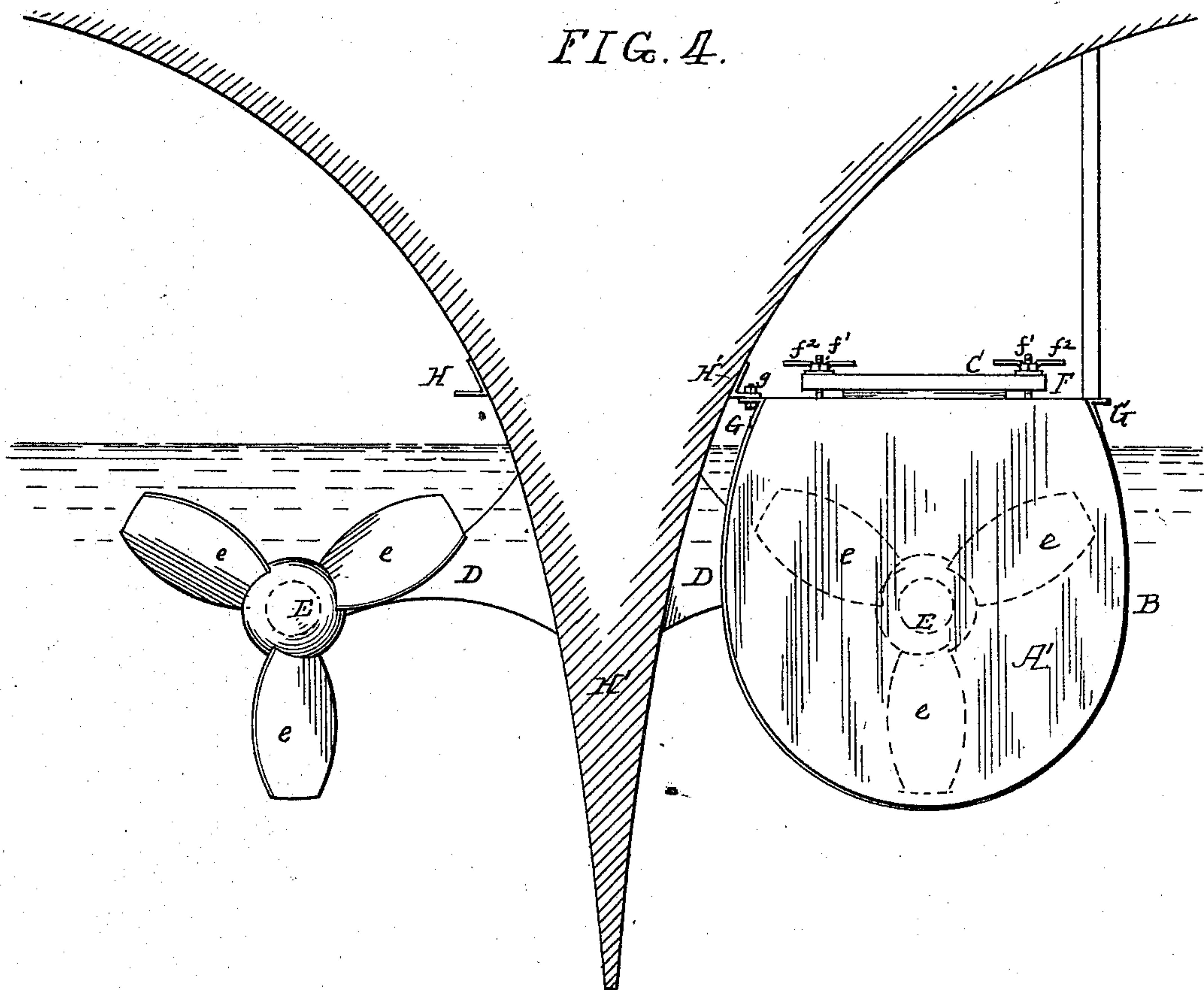
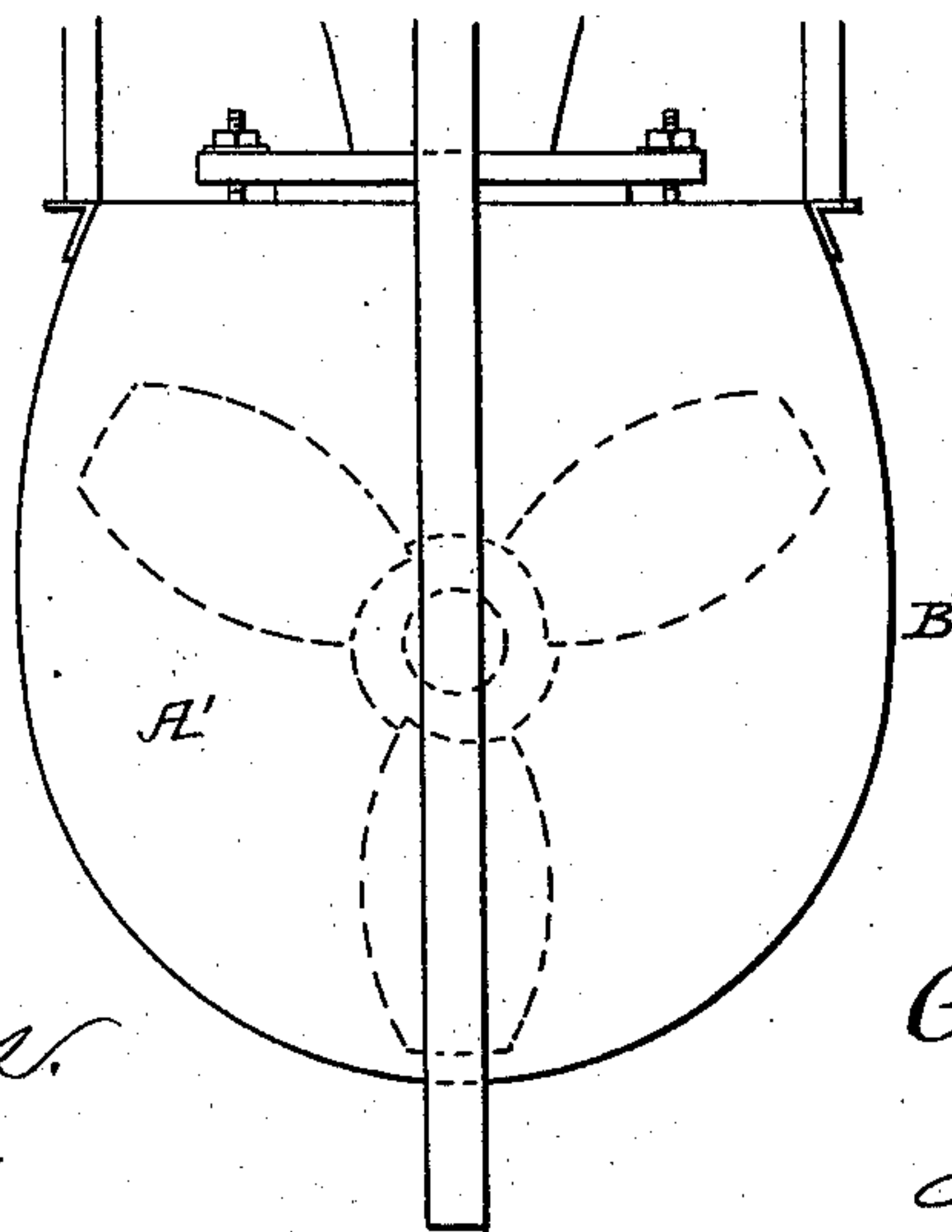


FIG. 5.



Witnesses:  
Albert Popkins,  
Jas. L. Skidmore.

Inventor:  
George Clarke  
by his attorneys  
Howson & Howson



# UNITED STATES PATENT OFFICE.

GEORGE CLARKE, OF JERSEY CITY, NEW JERSEY.

## PROPELLER-DAM.

SPECIFICATION forming part of Letters Patent No. 412,697, dated October 8, 1889.

Application filed May 14, 1889. Serial No. 310,727. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE CLARKE, a citizen of the United States, and a resident of Jersey City, New Jersey, have invented certain Improvements in Propeller-Dams, of which the following is a specification.

The object of my invention is to construct a propeller-dam for vessels of the twin-screw type, by which only the propeller to be repaired will be incased, and not the stern of the vessel, as in ordinary coffer-dams of this class.

Referring to the drawings, Figure 1 is a sectional elevation of my improved propeller-dam, showing its position in relation to the vessel. Fig. 2 is a section on the line 1 2, Fig. 1; and Fig. 3 is a section on the line 3 4, Fig. 1. Fig. 4 is a sectional view of the stern of the vessel with one of the dams attached. Fig. 5 is a view of the dam applied to a vessel of the single-screw type.

A A' are the heads of the dam, made, preferably, of wood, and having stay-bars *a a*, of wood or iron, and connecting these two heads together is a body B, of the shape shown in Fig. 1. This body is also made, preferably, of wood or sheet-iron, and suitably stayed by angle-bars *b b*.

There is sufficient iron used in the construction of this propeller-dam to allow it to sink a certain depth in the water, so that it can be readily shipped in position around the propeller-shaft.

The head A is slotted, as shown in Fig. 1, and adapted to grooves *c c*. In this head is a gate C. The lower portion of this gate is cut away for the reception of the bracket D of the propeller, and a portion of the head A is also cut away to receive this bracket D. On the top of the gate C is a bar F, through which pass bolts *f'*, hung to the head A at *f*, Fig. 1, and adapted to these bolts are handled nuts *f''*, so that when the gate is placed in position the handled nuts are turned, making a tight fit between the gate and the head A. Suitable strips of packing may be placed around the gate to prevent water from gaining access after the propeller-dam has been pumped clear of the water in the first place.

Attached to the side H' of the vessel is a

plate H, and on each side of the propeller-dam are plates G, having orifices which correspond with orifices in the plate H. Bolts are adapted to these orifices and nuts applied which will hold the propeller-dam in position with respect to the vessel, as the propeller-dam is secured to the vessel as well as to the propeller-bracket. To prevent the outer end of the propeller-dam from lifting, I place struts or shores from the dam to the under side of the vessel, as shown in Fig. 4.

The propeller-dam is of a size sufficient to take in the blades *e* of the vessel, and is shifted in position, as shown by dotted lines in Figs. 1 and 4, after which it is turned up; as shown by full lines in Figs. 1 and 4, and secured to the vessel. After it has been pumped out, workmen can enter the dam and remove one or more blades of the propeller for repairs, and can gain access to any portion of the propeller, as circumstances require.

I have shown in the drawings the propeller having three blades; but any number of blades may be used, as circumstances may require.

By making the propeller-dam in the shape shown it can be applied either to the right or left hand propeller without alteration, as shown in Fig. 4.

The opening in the head A is made sufficiently large in order to take in the propeller without enlarging the dam.

In Fig. 5 I have shown the propeller-dam adapted to a vessel of the single-screw type, the dam in this instance being placed in the screw-space between the rudder-post and the stern-post of the vessel.

I claim as my invention—

1. The combination, with a propeller or coffer dam for vessels, of the heads A A', with the body B, the head A having an opening for the reception of the shank or bracket of the propeller and a gate for closing said opening, substantially as specified.

2. In combination, a propeller or coffer dam for vessels, having two heads, one of which is adapted to receive the shank or bracket of the propeller, said dam having a body of the form substantially as shown and described, so that the said propeller-dam will

fit over either the right or left hand propeller, substantially as described.

3. The combination of the heads A A' and the body B, with securing-flange on the body, said  
5 flange being adapted to be secured to a flange on the vessel, substantially as described.

4. The combination of the heads A A', the body B, an opening in the head A for the  
10 reception of the shank or bracket of the propeller, with a gate C, adapted to said opening,

a bar F, secured to the head, with bolts passing through said bars, and nuts for forcing the gate to its seat.

In testimony whereof I have signed my name to this specification in the presence of two  
15 subscribing witnesses.

GEO. CLARKE.

Witnesses:

WILLIAM D. CONNER,  
HARRY SMITH.