

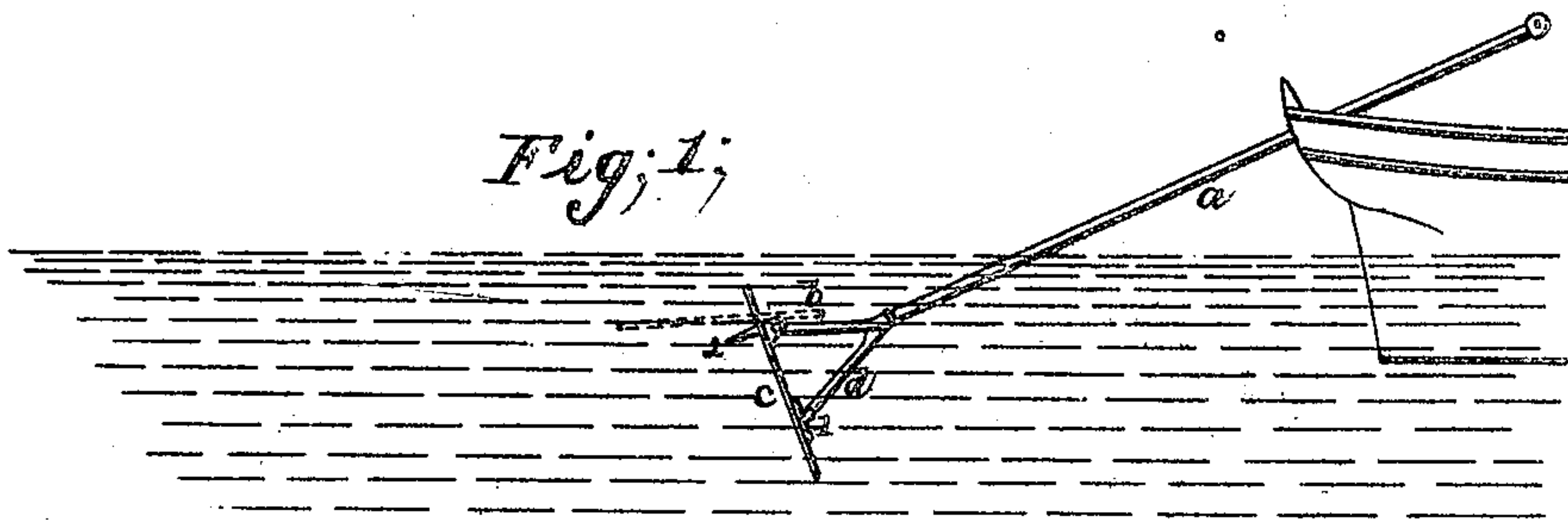
J. G. Ross.

*Vibrating Propeller.*

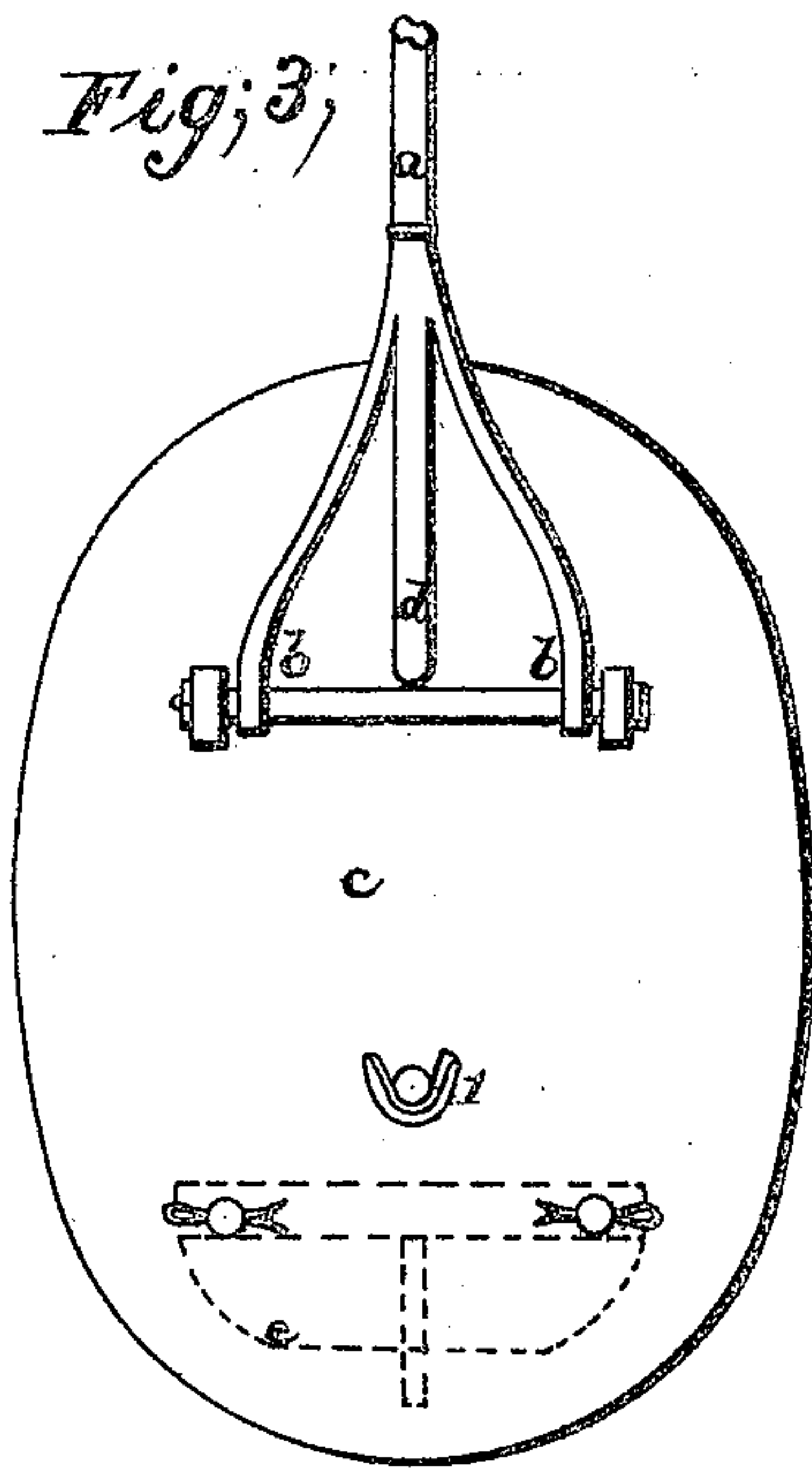
N<sup>o</sup> 14,973.

Patented May 27, 1856.

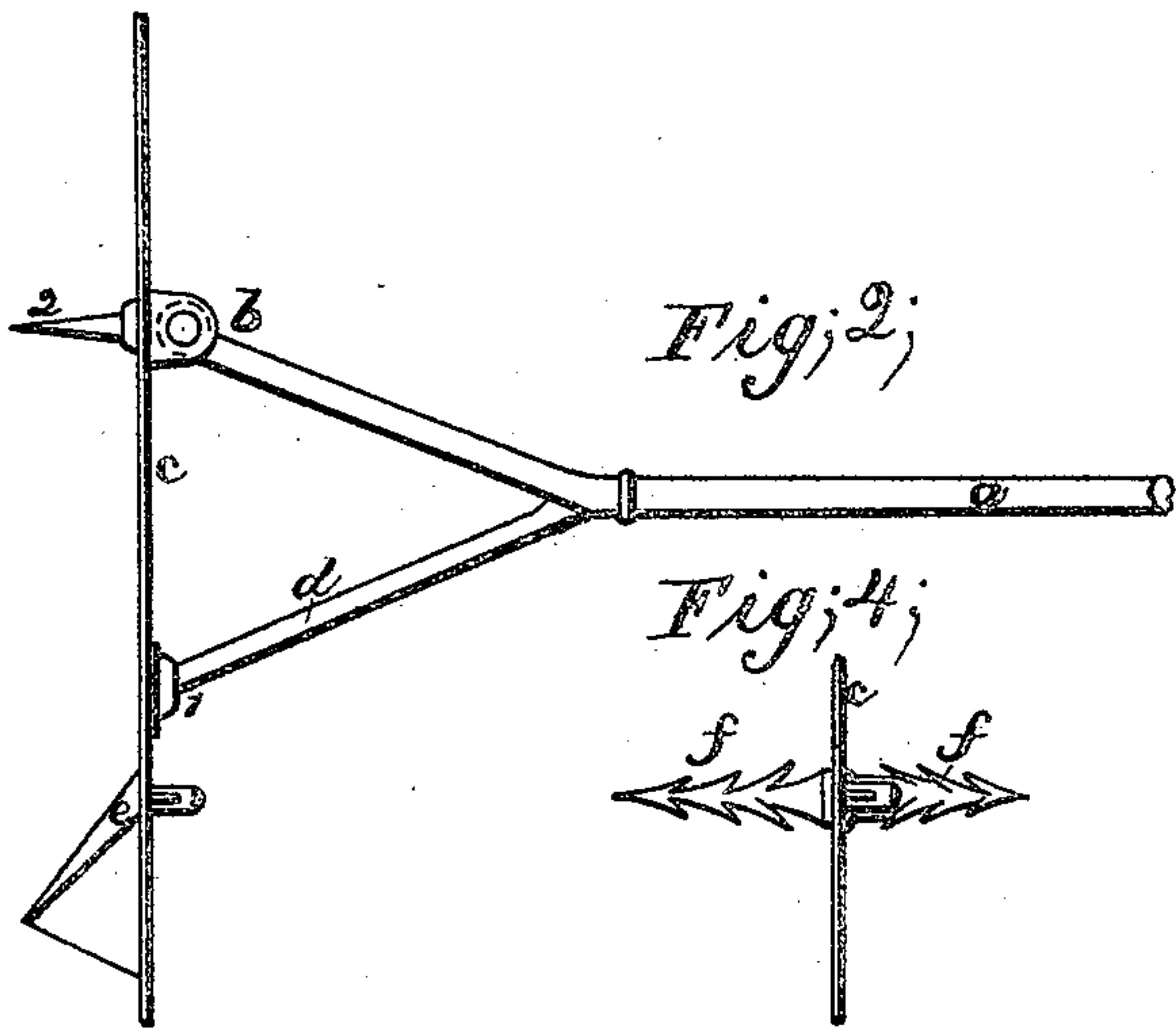
*Fig; 1;*



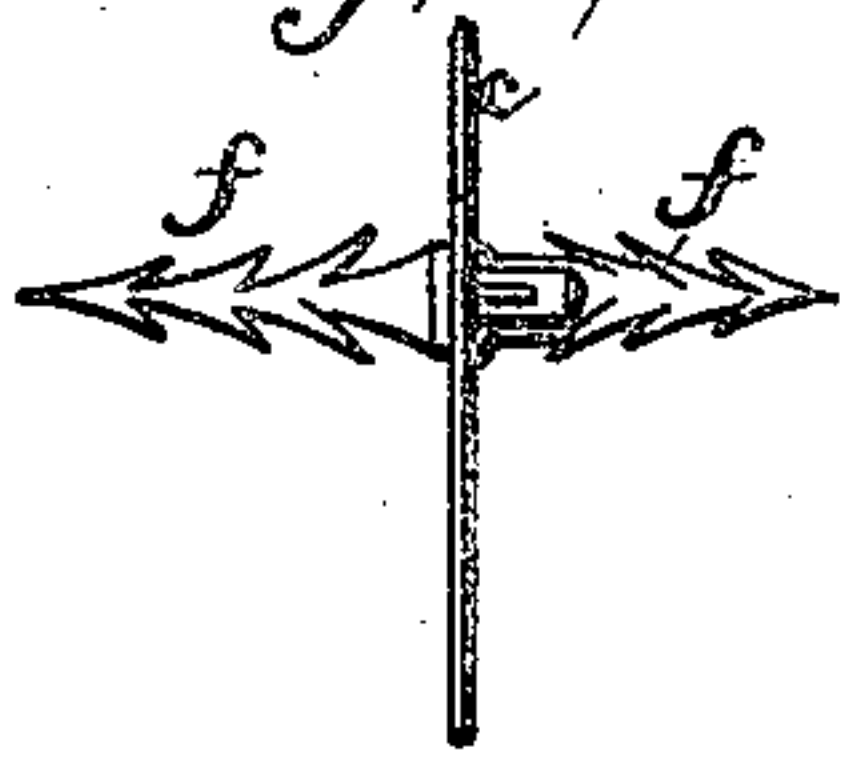
*Fig; 3;*



*Fig; 2;*



*Fig; 4;*



Witnesses;

H. S. Lincoln.

Lemuel W. Perrell.

Inventor;

John Gerard Ross



# UNITED STATES PATENT OFFICE.

JOHN GERARD ROSS, OF NEW YORK, N. Y.

## HAND-PROPELLER.

Specification of Letters Patent No. 14,973, dated May 27, 1856.

*To all whom it may concern:*

Be it known that I, JOHN GERARD ROSS, of the city, county, and State of New York, have invented, made, and applied to use a new and useful Improvement in Propellers to be Operated by Hand; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing, making part of this specification, wherein—

Figure 1, represents my improved propeller as in use at the stern of a boat. Fig. 2, is an edge view of the bucket, and Fig. 3 is a side view of the same.

Similar marks of reference indicate the same parts.

In the use of oars for row boats several inconveniences are experienced; the width required for their use often causes trouble in approaching a vessel or other object, or passing through narrow spaces; and for the purposes of war, the oar is inconvenient both on account of the noise it makes and the room required among a fleet of boats. For sporting purposes the oar is also illy adapted to use, because on approaching game the noise and motion of the rower are very readily discerned, and the game flies away.

The nature of my invention consists in applying to a duck's foot propeller so fitted as to be actuated by hand, a plate that adapts said propeller to muddy bottoms or banks of streams, and lance points also adapting said propeller to use with ice or in whale fisheries, &c.

In the drawing *a*, is a handle or pole of the desired length, with a fork on the end that is attached by joints *b, b*, to the bucket or propeller *c*, in such a manner that said bucket can turn on the joints *b, b*, into a position either parallel with or at right angles to said handle.

*d*, is a leg or strut attached to the handle *a*, and entering within a hole or flanch 1, on the bucket *c*, when the said bucket is at right angles or nearly so to the handle *a*, which hole or flanch 1, prevents the foot of said strut slipping on the propeller or bucket.

The operation of this hand propeller will

be obvious, for when forced in the opposite direction to that of the boat the bucket will turn down at right angles to the handle and become a resistance against which to push the boat, and when drawn back, said bucket will turn up and pass edgewise through the water as seen in Fig. 1, by dotted lines.

When this propeller is to be used under circumstances of exposure to drifting ice, points 2, 2, are to be attached on the opposite side to the joints *b, b*, which also serve as boat hooks when required.

If this propeller is to be used in situations where shallow water and mud exist, I attach onto the lower part of the bucket the plate *e*, that is formed with studs passing through the bucket and mortises receiving split keys or similar means of attachment and beneath this plate *e*, is a bracket retaining the same at such an angle from the plate as to act in the best manner when forced down onto the mud, said plate preventing the bucket sliding over the mud.

My improved propeller is also well adapted to whale fishery and similar purposes, on account of its noiselessness, and when used in this capacity I make use of the lance points *f*, attached to the bucket in place of the plate *e*, see Fig. 4, and by means of these lance points the bucket may be fastened to a whale or similar fish, or in rivers containing alligators or crocodiles, or in bays with porpoises, this propeller with the lance points *f*, would be far more serviceable than the common oar. Two struts or feet *d* may be used instead of only one.

I do not claim a bucket moving on hinges in itself as this is well known in propellers for steam vessels, and is generally known as the "duck's foot propeller," but

What I claim and desire to secure by Letters Patent is—

The plate *e*, and lance points *f*, in connection with the propelling bucket constructed and operating as specified.

In witness whereof I have hereunto set my signature this eighth day of April, 1856.

JOHN GERARD ROSS.

Witnesses:

H. S. LINCOLN,  
LEMUEL W. SERRELL.