

O. A. Davis.

Screw Propeller

N^o 99,540.

Patented Feb. 8, 1870.

Fig: 1

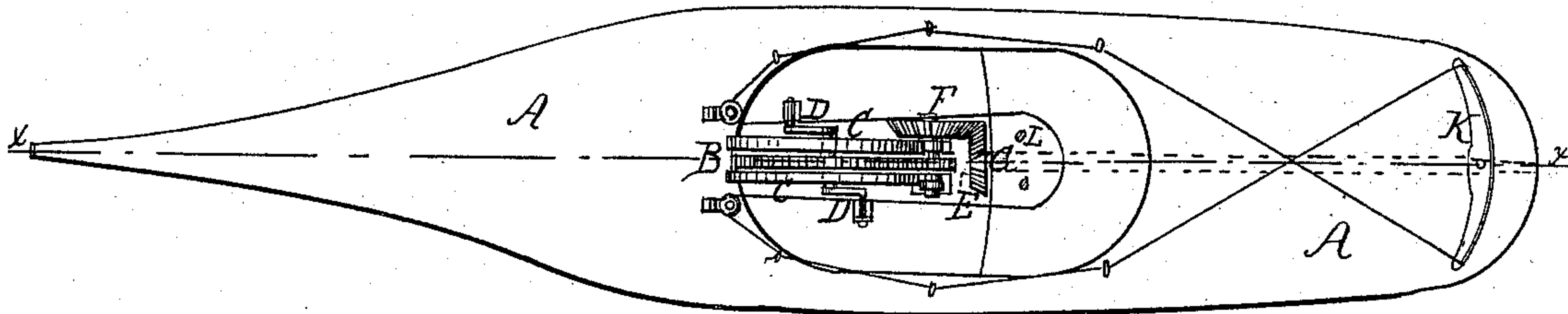
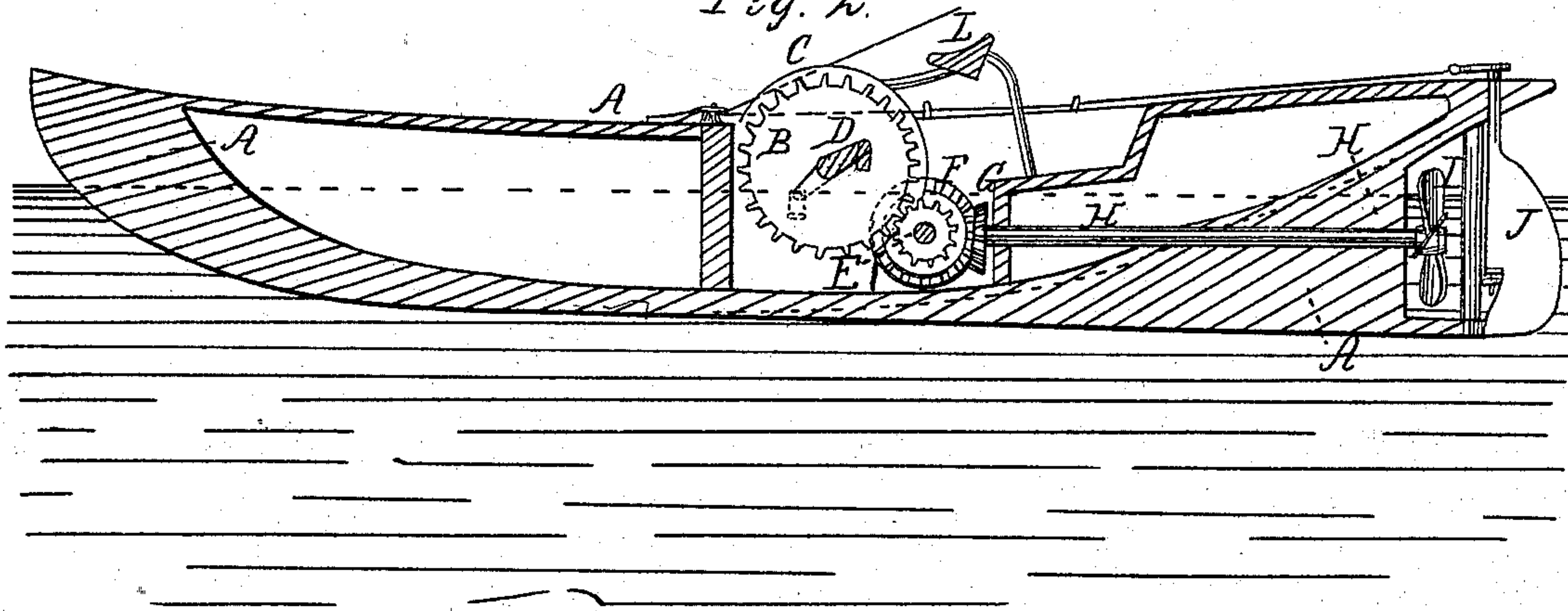


Fig: 2.



Witnesses.

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OLIVER A. DAVIS, OF BROOKLYN, NEW YORK.

Letters Patent No. 99,540, dated February 8, 1870.

IMPROVEMENT IN FLOATING VELOCIPEDES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, OLIVER A. DAVIS, of Brooklyn, in the county of Kings, and State of New York, have invented a new and useful Improvement in Water-Velocipedes; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing, forming part of this specification, in which—

Figure 1 is a top view of a boat, to which my improvement has been attached.

Figure 2 is a vertical longitudinal section of the same, taken through the line *x x*, fig. 1.

Similar letters of reference indicate corresponding parts.

My invention has for its object to combine, with a small and light boat, an arrangement of mechanism by means of which the boat may be easily and rapidly propelled through the water by a convenient application of foot-power; and

It consists in the combination of the foot-cranks and gear-wheels with the propeller-shaft and screw, and with the boat, as hereinafter more fully described.

A represents a boat, which should be built light and strong.

B is a large gear-wheel, the journals of which work in bearings in the supports C, secured in the middle part of the boat A.

The supports C should be made of about the same shape in their upper parts as the wheel B, so as not only to support the said wheel, but also to serve as guards to prevent the clothes of the operator from coming in contact with and being injured by the said wheel B.

Upon the projecting ends of the journals of the wheel B, are formed cranks D, which are provided with stirrups to receive the feet of the operator.

The teeth of the wheel B mesh into the teeth of the small gear-wheel E, attached to a short transverse shaft, which works in bearings in supports attached to the frame-work of the boat A, and to which is also attached a bevel-gear wheel, F.

The teeth of the bevel-gear wheel F mesh into the

teeth of the bevel-gear wheel G, attached to the forward end of the propeller-shaft H, which passes out through the stern of the boat, and to the rear end of which is attached a screw, I, so that the said screw may be revolved, to propel the boat by foot-power applied to the cranks D.

J is the rudder, to the upper end of which is attached a cross-bar, K, or a tiller, from which cords pass along the sides of the boat, through eye-bolts or staples, to the front of the operator, and thence back into such a position that they can be conveniently reached and operated by the operator, to guide the boat.

L is the seat, which is adjustably attached to supports attached to the boat A, and to the support C, so that the seat may be moved forward or back, to adjust its position to the requirements of the one who is to operate the boat, so that he may conveniently operate the cranks D.

If desired, connecting-rods may be pivoted to the cranks D, extending back to a seat in the rear part of the boat, so that the cranks may be operated by hand-power for the propulsion of the boat, or to assist the one propelling it with his feet.

Having thus described my invention,

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

1. The combination of the large gear-wheel B, cranks D, whether provided with stirrups or not, small gear-wheel E, and bevel-gear wheels F and G, with each other, with the shaft H, screw I, and boat A, substantially as herein shown and described, for the purpose set forth.

2. The combination of the adjustable seat L with the gear-wheel B, supports C, and cranks D, substantially as herein shown and described, and for the purpose set forth.

The above specification of my invention signed by me, this 7th day of April, 1869.

OLIVER A. DAVIS.

Witnesses:

FRANK BLOCKLEY;

JAMES T. GRAHAM.