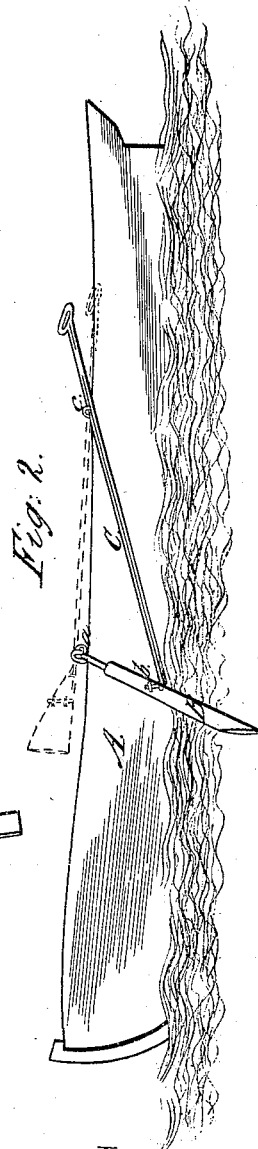
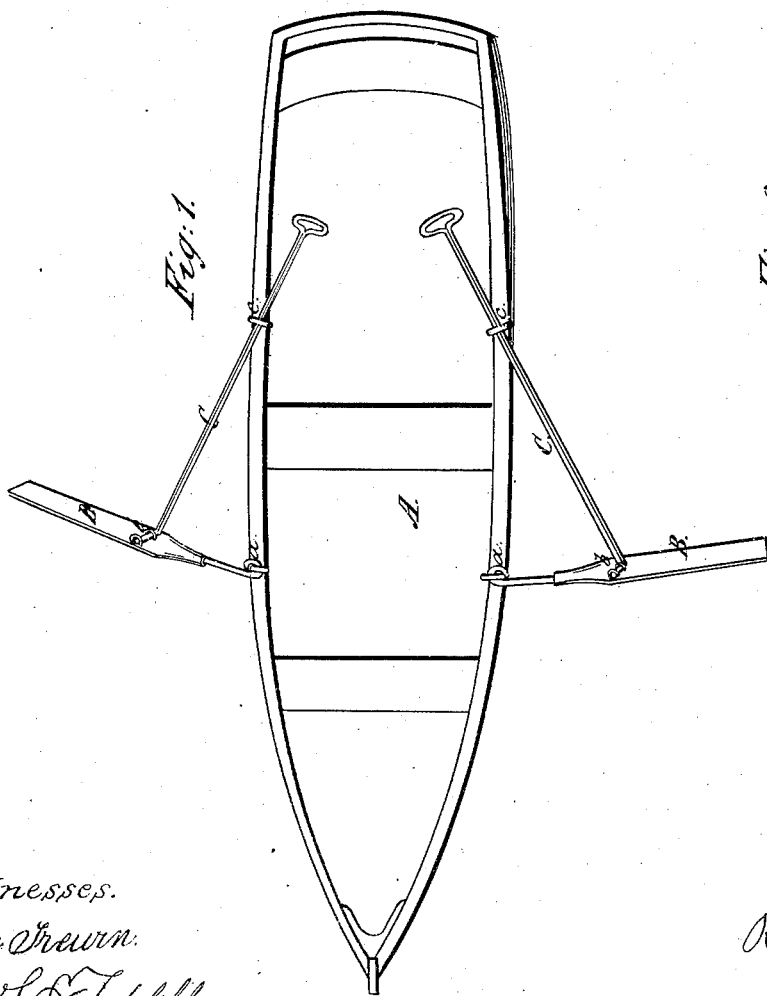


R. Smith.
Oar & Oar Lock.

N^o 49,930.

Patented Sep. 12, 1865.



Witnesses.
Wm. Brown.
E. L. Topliff

Inventor.
R. Smith
By Edmund Co.
Att'y

UNITED STATES PATENT OFFICE.

RALPH SMITH, OF BROOKLYN, NEW YORK.

RIGGED OAR OR BOAT-FIN.

Specification forming part of Letters Patent No. 49,930, dated September 12, 1865.

To all whom it may concern:

Be it known that I, RALPH SMITH, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Rigged Oar or Boat-Fin; 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 drawings, forming part of this specification, in which—

Figure 1 is a plan or top view of a small boat with my improvement applied to it, and Fig. 2 a side view of the same.

Similar letters of reference indicate corresponding parts.

This invention relates to a new and improved means for propelling small boats, ("row-boats," commonly so termed,) and is designed as a substitute for and an improvement upon the common oar now used for such purpose.

The invention, which I term a "rigged oar" or "boat-fin," consists in attaching to each side of the boat, by joints, one or more blades or paddles arranged with rods in such a manner that the operator may work said blades or paddles to propel the boat forward while sitting with his face toward the bow, and at the same time have perfect command over the boat and apply his power in a direct and far more favorable manner than by the ordinary oar.

A represents a small boat, and B B are two blades or paddles, the upper ends of which are attached by universal joints *a* to the sides of the boat, a blade or paddle being at each side of the latter.

C C represent rods, which are attached to the blades or paddles B by joints *b*, and at such a point that they will not come in contact with the water—that is to say, not be submerged in it during the operation of the blades or paddles. These rods C C pass through guides *c* attached to the side of the boat, and extend back toward the stern, so that they may be grasped and worked readily by the operator on his seat. The joints *b*, which connect the rods C with the blades or paddles, have their

pintles at right angles with the latter. The operator, by means of these rods, works the blades or paddles while facing the bow of the boat, the blades or paddles, when at work, being down in the water and drawn toward the stem in the arc of a circle by pulling the rods C backward. When the blades or paddles reach the termination of this movement they are out of the water and in a horizontal plane with the upper edge of the boat, and they are then, by slightly turning the rods inward and shoving them forward, moved forward above the surface of the water, and then, by turning the rods C outward, allowed to drop into the water and again drawn back. Thus by this simple arrangement the operator is enabled to apply his power in a very direct manner for the purpose of propelling the boat, and the latter may be moved in any direction, and in case he releases his hold of either rod no harm is done, as the blade will swing around to the boat's side at once and float upon the water.

When not required for service a turn inward of the rods C will place both the blades and their rods within the boat; or the joints *a* may be so constructed as to admit of the blades being readily detached when necessary.

The blades or paddles may be considered as levers, the fulcrum the fixed place in the water. The weight or burden to be moved (the boat) is connected by the rods C to the blades or paddles (levers) at a point where the weight and power are nearly the same; hence the action of the operator is almost equivalent to that of pulling upon some detached and fixed object and drawing his boat toward it without waste of power.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The arrangement and combination of the blades B and rods C, attached and operated as described and represented.

RALPH SMITH.

Witnesses:

M. M. LIVINGSTON,
C. L. TOPLIFF.