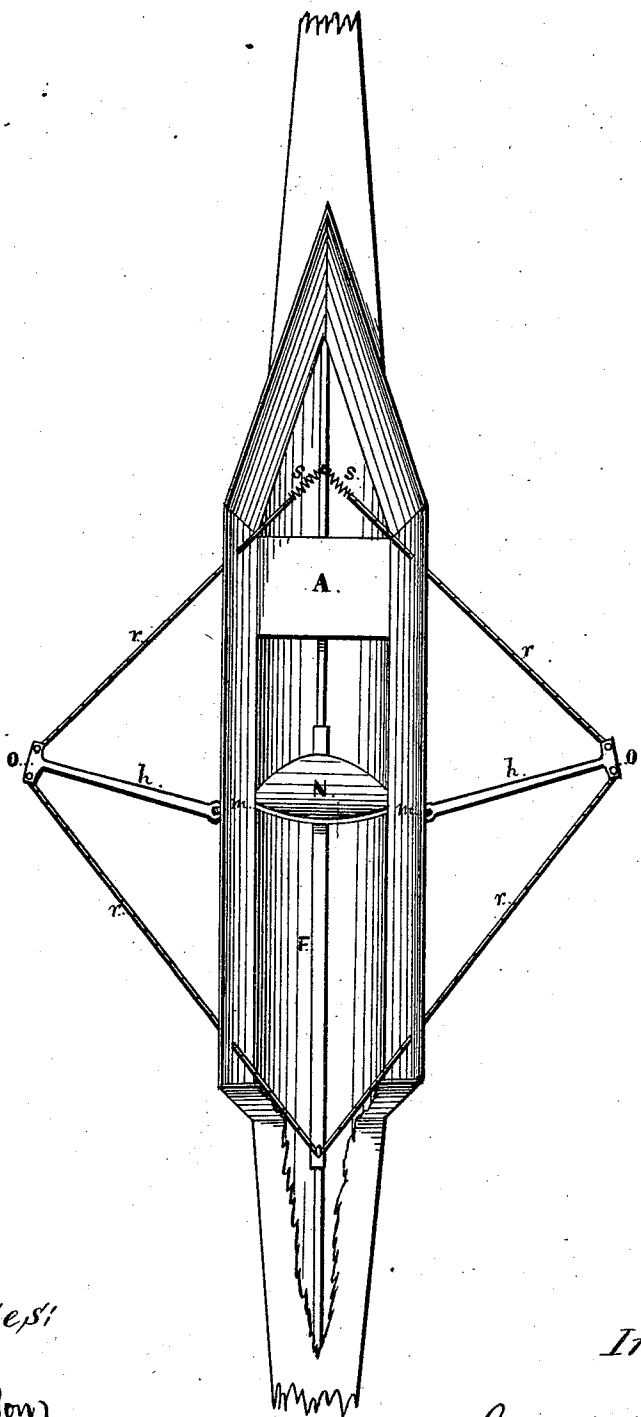


G. W. ISAACS, Jr.

SWINGING-OUT RIGGERS FOR ROW-BOATS.

No. 183,265.

Patented Oct. 17, 1876.



Witnesses:

Robt. A. Morrison  
James P. McLean

Inventor:

Geo. W. Isaacs Jr.

# UNITED STATES PATENT OFFICE.

GEORGE W. ISAACS, JR., OF NEW YORK, N. Y.

## IMPROVEMENT IN SWINGING OUTRIGGERS FOR ROW-BOATS.

Specification forming part of Letters Patent No. **183,265**, dated October 17, 1876; application filed November 18, 1875.

*To all whom it may concern:*

Be it known that I, GEORGE WASHINGTON ISAACS, Jr., of the city, county, and State of New York, have invented certain novel and useful Improvements in the Construction of Adjustable Rowlocks and Outriggers for Row-Boats; and I hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing, which is lettered to correspond with and form a part of the specification.

To enable those skilled in the mechanic arts to construct and operate the same, and the public to understand the nature thereof, I will describe it, as follows, to wit:

Figure 1 is a section of a skull-boat having my improvement attached, which consists of outriggering constructed in the form of arms or swinging cranes *h h*, hinged or otherwise secured to the sides of the boat *A* at *m*. These swinging arms are provided with rowlocks *o o* at their extreme outer ends, which may form an integral part of the said arms or cranes *h h*, or may be secured to the same by means of screw-bolts or otherwise. The guy-ropes *r r* are fastened at their outer ends to the rowlocks *o o*, and the inner or opposite ends of said ropes are secured to the springs *s s* and reciprocating bed *F*, to be operated by the adjustable foot-board or stretcher *N* in one direction, and by the springs *s s* in the opposite direction, in a similar manner to that which

is set forth in my pending application for a patent for an improvement in moving rowlocks and stretchers combined, filed August 12, 1875. Hence the novelty of this invention consists in the construction of the swinging arms or cranes *h h* on each side of the boat *A*, operating in segmental arches or curves by means of cords put in motion by suitable mechanical devices, arranged and operating upon the inside of the boat, to produce the swinging movement of the arms *h* in conjunction with the moving oars operating upon the outer ends of said swinging cranes or arms; therefore,

What I claim as novel and useful, and wish to protect by Letters Patent of the United States, is—

The swinging arms or cranes *h h*, hung upon each side of the boat *A* at *m*, operating to increase the speed of the boat by the action of the oars upon the extreme outer ends or fulcrums of said arms at different angles, in combination with suitable mechanical devices operating upon the inside of the boat *A*, substantially as and for the purpose set forth.

In testimony whereof I hereunto subscribe my name in the presence of two witnesses.

GEO. W. ISAACS, JR.

Witnesses:

JAMES P. McLEAN,  
ROBT. A. MORRISON.