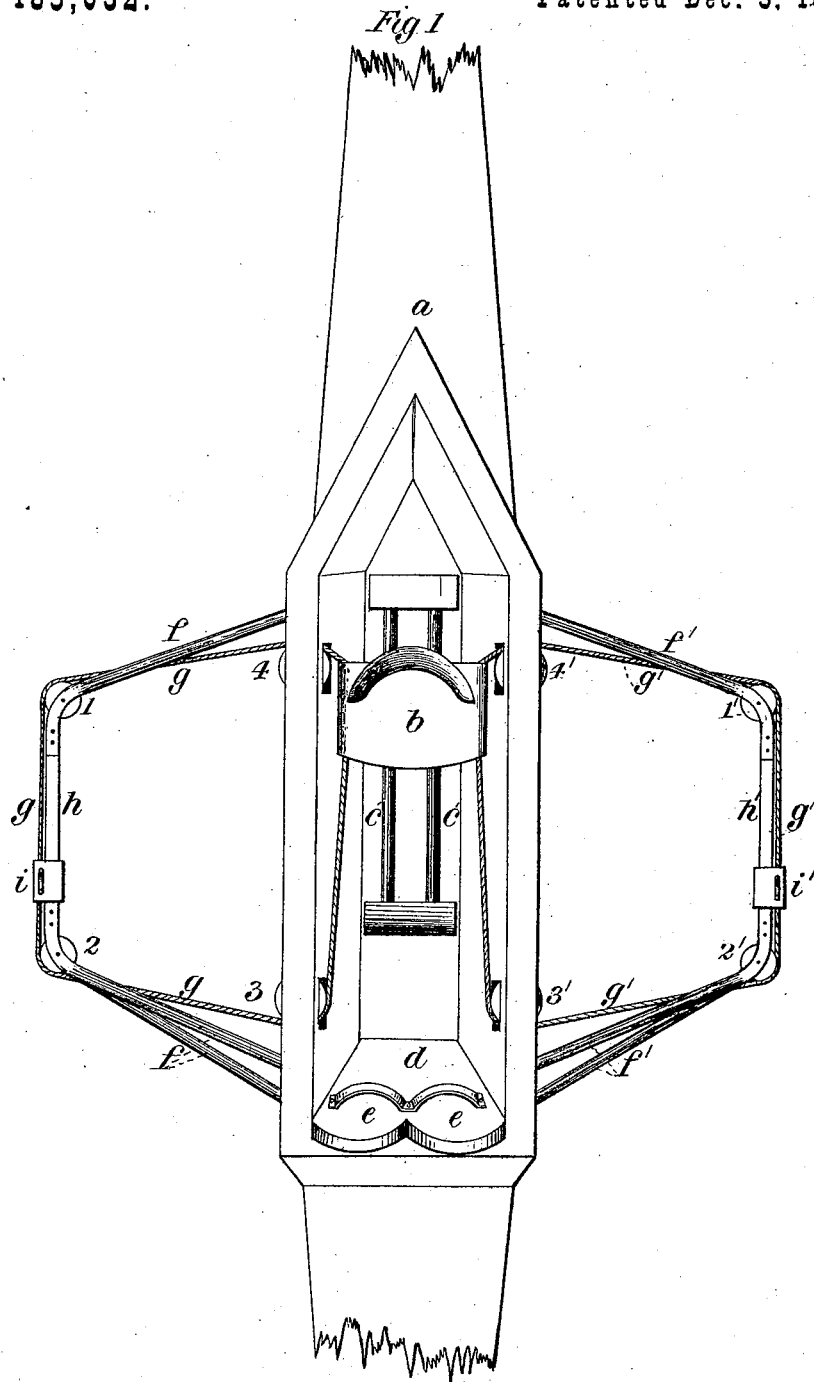


G. W. ISAACS, Jr.

SLIDING ROW-LOCK.

No. 185,032.

Patented Dec. 5, 1876.



Witnesses  
J. Ritchie McLean }  
J. P. McLean }

Inventor  
Geo. W. Isaacs Jr.

# UNITED STATES PATENT OFFICE

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

## IMPROVEMENT IN SLIDING ROWLOCKS.

Specification forming part of Letters Patent No. 185,032, dated December 5, 1876; application filed April 6, 1876.

*To all whom it may concern:*

Be it known that I, GEORGE W. ISAACS, JR., of the city, county, and State of New York, have invented a new and useful Improvement in Movable Rowlocks and Outriggers, for propelling and increasing the speed of club or other row-boats; and I hereby declare in what manner the same is to be constructed, arranged, and operated, reference being had to the accompanying drawing, which is lettered to correspond with, and form a part of, the specification.

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

The drawing represents a top view or plan of a section of a club-boat, *a*, provided with two stationary outriggers, consisting of bracing-arms *f f' f'*, united by connecting-bars *h h'*, upon which the reciprocating rowlock-blocks *i i'* traverse backward and forward. 1 2 3 4 1' 2' 3' 4' are anti-friction wheels, secured and operating between the bracing-arms *f* and *f'* at their curved or angular ends, while the inner anti-friction wheels are let into, and operate in, the gunwale or sides of the boat. The ropes *g g'* are secured to the blocks *i i'* at the center thereof, while the ends of the said ropes pass over the pulleys 1 2 3 4 and 1' 2' 3' 4', and are drawn tightly and secured to the sides of the movable seat *b*, which reciprocates upon the rods *c' c'* in the bottom of the boat *a* by the motion of the body of the oarsman. *e e* are toe-loops, secured to the foot-

board *d*, by which means the rower draws the seat and his body toward the foot-board *d*, which causes the rowlock-blocks *i i'* to move in the direction of pulleys 1 1'; and when the seat *b* is moved back again by pressing the feet against the board *d*, the rowlocks stand in the position shown in the drawing, or vice versa.

Moving rowlocks are covered in my pending application now before the Patent Office, in combination with outriggers and movable foot-boards or stretchers and spiral springs with stationary seat. These I do not claim as forming any part of this application; but its novelty consists in operating the oarlocks to increase the speed of a scull or other row-boat by the movement of the seat of the oarsman, in combination with anti-friction pulleys and other parts, substantially as described. Therefore,

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

The combination of the movable seat *b*, ropes *g g'*, anti-friction pulleys 1 2 3 4 and 1' 2' 3' 4', stationary rigid arms *f f'*, connecting-bars *h h'*, blocks *i i'*, and ways *c' c'*, all constructed, arranged, and operating 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:

J. P. McLEAN,  
R. A. MORRISON.