

(No Model.)

3 Sheets—Sheet 1.

H. B. NICKERSON.  
EXERCISING DEVICE.

No. 580,420.

Patented Apr. 13, 1897.

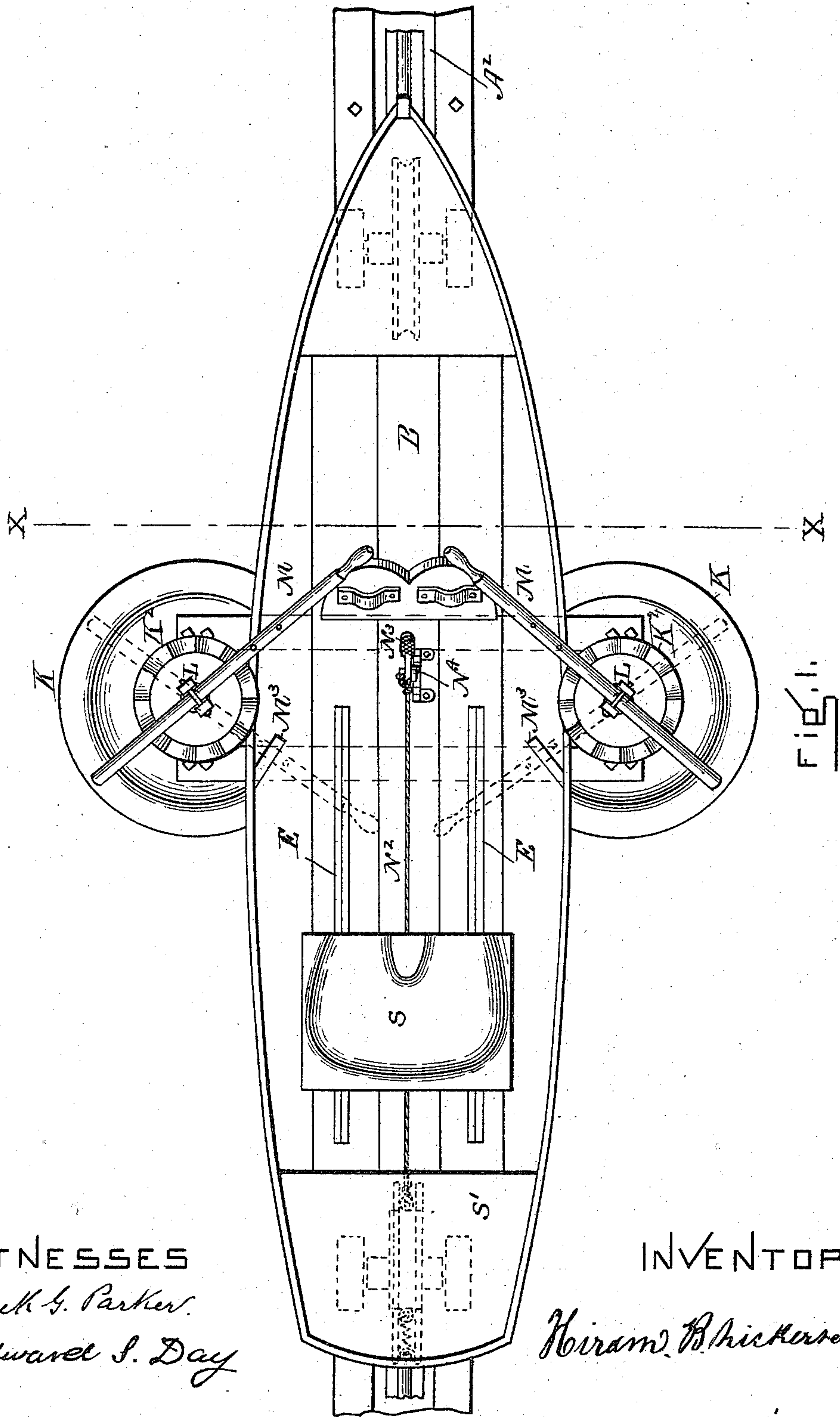


Fig. 1.

WITNESSES

Frank G. Parker.

Edward S. Day

INVENTOR

Hiram B. Nickerson.

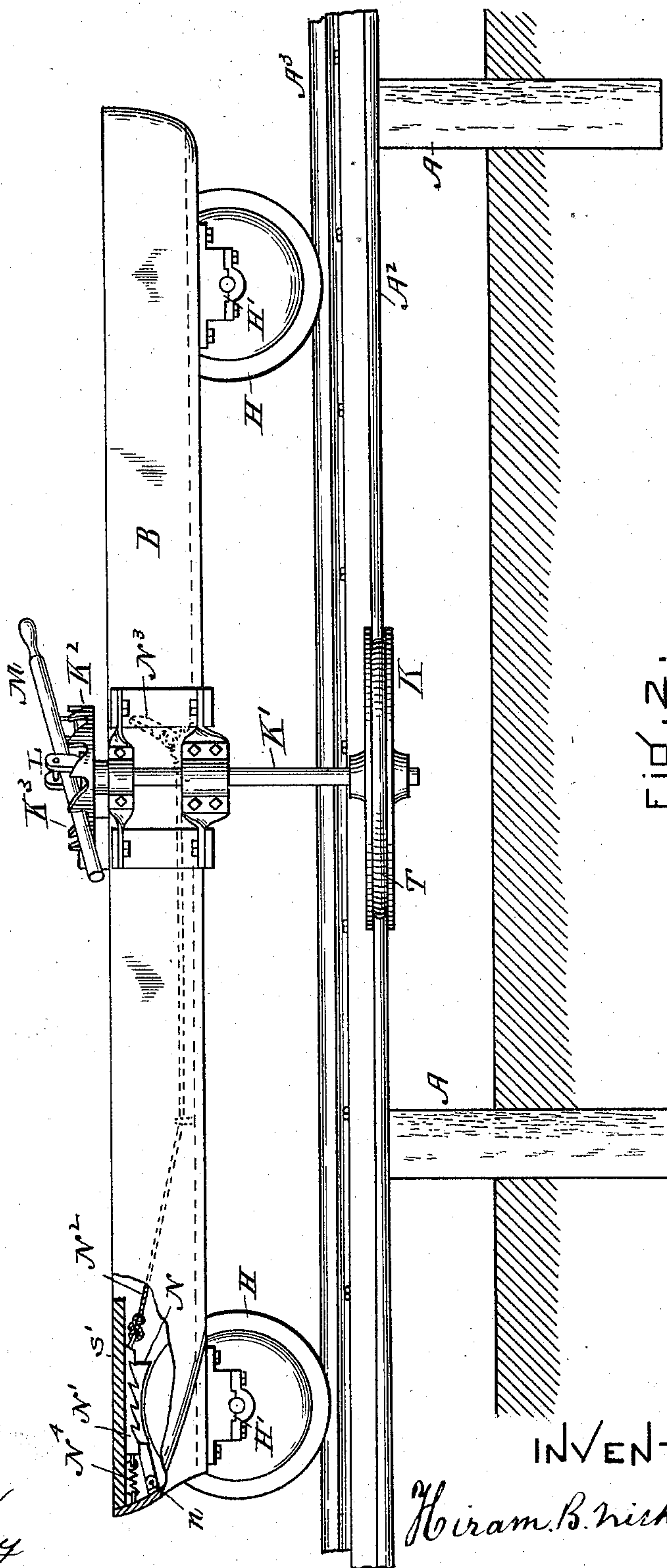
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Frank G. Parker  
Edward S. Day

INVENTOR

Hiram B. Nickerson.





# UNITED STATES PATENT OFFICE.

HIRAM B. NICKERSON, OF BOSTON, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO JOHN J. MCCORMACK, OF BROOKLINE, MASSACHUSETTS.

## EXERCISING DEVICE.

SPECIFICATION forming part of Letters Patent No. 580,420, dated April 13, 1897.

Application filed January 15, 1896. Serial No. 575,614. (No model.)

*To all whom it may concern:*

Be it known that I, HIRAM B. NICKERSON, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Exercising Apparatus, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to that class of exercising apparatus in which the art of rowing is simulated; and it consists in the peculiar construction and arrangement of the parts, which may be best understood by reference to the drawings and specification.

In the accompanying illustrations, Figure 1 is a plan showing my apparatus. Fig. 2 is a side view of the same. Fig. 3 is a cross-section taken on line X X of Fig. 1. Fig. 4 is a detail to illustrate my device for causing the feathering of the oar.

I do not wish to confine myself to any particular form of track or boat, as they may be varied to suit the desires of the users.

The track that I have selected for illustration consists of a series of posts A A, set upright in the ground. Upon the tops of these posts I nail a plank A<sup>2</sup>, upon the center of which a rail A<sup>3</sup> is secured. To the sides of the plank A rails A<sup>2</sup> A<sup>2</sup> are mounted and bolted or spiked. The boat B may be made for a single oarsman or for a number and is provided with sliding seats, one of which is shown at S mounted on ways E E. The framework of the central part of the boat is preferably made of metal bars formed and united as shown in Fig. 3. The propelling-wheels K K have elastic tires T, so as to give a good frictional hold on the rails A<sup>2</sup> A<sup>2</sup>. The wheels K are keyed to upright shafts K' K', said shafts being journaled in the housings D D'. Near the upper end of each shaft K' a crown-ratchet K<sup>2</sup> is rigidly attached, and on the upper end of each of the shafts a rowlock L is mounted in such a manner as to be free to turn.

The oars M are adapted to fit into the notches K<sup>3</sup> in the crown-ratchets K, so that by proper manipulation the oarsman may cause

the said crown-ratchet to rotate. This, acting through the shafts K' and propelling-wheels K, will cause the boat to move rapidly along the track. The movements of the oars will be almost identical with the movements of the oars in actual boat-rowing, so that in this exercise the user will get the same benefits that he would in water practice.

When it is desired to assist the novice in learning to feather the oar, I have the following-described device. The oar is pinned or otherwise confined to the rowlock, so that it cannot be lifted out, and is provided with a projecting loop M', (see Figs. 3 and 4,) which, when the blade of the oar is vertical, will be nearly in contact with the bracket M<sup>3</sup>, so that the oar cannot be disengaged from its notch in the crown-ratchet K<sup>2</sup> unless it is first turned, ("feathered,") but as soon as it is turned the hand end of the oar can be depressed and the oar disengaged from the ratchet and the stroke repeated.

Two or more wheels H, suitably mounted in housings H' H', are placed under the boat and adapted to run on the rail A<sup>3</sup>.

For convenience in checking the motion of the boat I have a brake device consisting of a brake-shoe N adapted to engage with the wheel H, and pivoted at *n* between the brake N and the seat S', I have a wedge N', which has a retracting-spring N<sup>4</sup> and an operating cord or chain N<sup>2</sup>, which is connected with a foot-lever N<sup>3</sup>, pivoted at N<sup>4</sup>. When the user wishes to operate the brake, he has simply to press the lever N<sup>3</sup> with his foot and thus draw the wedge N' forward, forcing the brake-shoe N against the wheel H, thereby checking the motion of the boat.

I claim—

1. In an exercising-machine, a track, a movable boat mounted thereon by means of supporting-wheels which run upon the track, and vertical shafts provided with propelling-wheels upon their lower ends to engage the edges of the track, ratchet-wheels upon their upper ends, and oars adapted to engage the ratchets, and a seat for the rower in the boat, substantially as shown.

2. The oars, provided with projecting loops,  
and oar-locks in which the oars are pinned,  
combined with brackets secured to the inner  
side of the boat, and against which brackets  
5 the loops strike for the purpose of turning  
the oars, substantially as described.

In testimony whereof I have signed my

name to this specification, in the presence of  
two subscribing witnesses, on this 11th day of  
January, A. D. 1896.

HIRAM B. NICKERSON.

Witnesses:

FRANK G. PARKER,  
EDWARD S. DAY.