

OAR LOCK.

Patented Jan. 10, 1911.

2 SHEETS--SHEET 1.

Fig. 1.

Inventor

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Witnesses.
Thos. F. Knox,
Wm. J. North.

Inventor
Charles A. Livingston.
By Victor J. Evans
Attorney

981,439.

C. A. LIVINGSTON.
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2 SHEETS—SHEET 2.

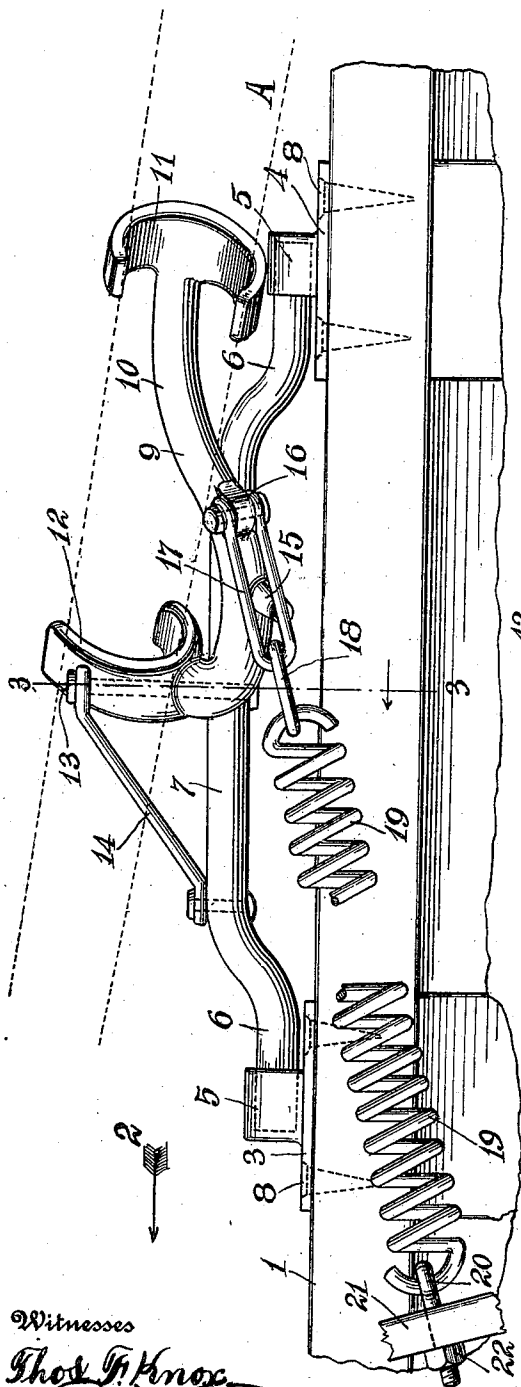


Fig. 2.

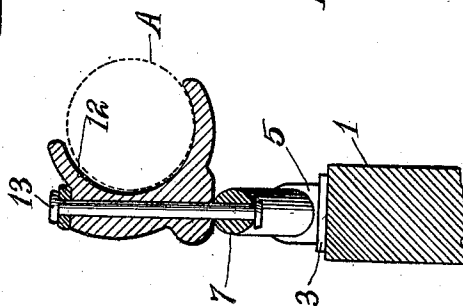


Fig. 3.

Witnesses
Thos. H. Knox
Wm. D. North

Inventor
Charles A. Livingston,
By Victor J. Evans
Attorney

UNITED STATES PATENT OFFICE.

CHARLES A. LIVINGSTON, OF LA CONNER, WASHINGTON, ASSIGNOR OF ONE-SIXTH TO
FREDERICK J. BELCHER, OF LA CONNER, WASHINGTON.

OAR-LOCK.

981,439.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHARLES A. LIVINGSTON, a citizen of the United States, residing at La Conner, in the county of Skagit and State of Washington, have invented new and useful Improvements in Oar-Locks, of which the following is a specification.

This invention relates to improvements in oar locks, and the object of the invention is to provide a simple and inexpensive device of this character which may be easily attached to the sides of a row boat, and which has its parts so constructed and arranged as to allow the oarsman to face the bow of the boat and propel the boat with the least amount of physical exertion.

Another object of the invention is to provide a device of this class having a pivoted oar lock provided with spaced, oppositely disposed, substantially U-shaped jaws adapted to contact both sides of the oar, the said lock being mounted upon a swinging support so that the oar may be readily dipped for its working stroke and "feathered" for its return stroke.

A still further object of the invention is to provide means whereby the oarsman pulls one-half of the load on the idle stroke, expanding a helical or close coiled spiral spring and pushes on the working stroke with the aid of the contracting spring instead of pulling the full load on one stroke and no load on the other stroke.

With the above, and other objects in view, which will appear as the description progresses, the invention resides in the novel construction and combination of parts hereinafter fully described and claimed.

In the accompanying drawings there has been illustrated a simple and preferred embodiment of the improvement, and in which drawings,

Figure 1 is a top plan view of a portion of a row boat showing the improved oar lock attached thereto, the same being illustrated in full lines in its position at the end of the working stroke of the oar and in dotted lines the position of the lock when the oar is to be dipped for its working stroke. Fig. 2 is a side elevation of the same. Fig. 3 is a detail sectional view upon the line 3—3 of Fig. 2.

When the oarsman, while rowing the boat, is obliged to sit facing the stern rather than

the bow, he is not only prevented from seeing the direction of movement of the boat but is liable to impel it against an obstacle. This often detracts from the pleasure of rowing and, besides, when he has to grasp the oar and move it forward and backward he has to make movements of his hands and arms that soon tire him. With my improved oar lock or rowing gear these difficulties are greatly reduced by the equally divided pulling and pushing made possible through the medium of a spiral spring whereby energy is stored upon one stroke of the oar and expended in the opposite stroke of the oar, nor is the rower obliged to sit low in the boat in a cramped position as is necessary in the ordinary process of rowing.

In the accompanying drawings the numeral 1 designates one side of an ordinary row boat, and the arrow 2 is pointed toward the bow of the boat. Positioned upon the gunwale of the boat 1 is a pair of spaced plates 3 and 4, each being provided with upstanding eyes or sockets 5, which are adapted for the reception of the offset extremities 6 of a supporting rod 7. The plates 3 may be secured to the gunwale through the medium of removable elements such as screws 8. The supporting rod 7 comprises an upper longitudinally extending body portion having both of its ends bent or offset so as to be readily positioned within the sockets 5 of the plates 3 and 4. Pivotaly connected with the top or body portion 7 of the supporting member is an oar lock 9. This lock 9 is constructed of a single piece of suitable material and comprises a curved body portion 10 having its ends offset in opposite directions to provide substantially U-shaped jaws 11 and 12. The portion of the body at its juncture with the jaw 12 is provided with a vertical opening which is adapted for the reception of a pivot member 13, whereby the said lock 9 is connected with the body of the support 7.

The numeral 14 designates an inclined brace member which has one of its ends secured to the pivot 13, and its opposite end connected with the support 7.

The numeral 15 designates an offset finger formed integral with the body of the lock 9 and which is adapted to contact with the side of the support 7, when the lock is in the position illustrated in full lines on the draw-

ing, so as to limit the movement of the said lock in one direction, for a purpose presently to be set forth.

The body of the oar lock 9 may be provided with an ear 16, to which is pivotally secured a bail 17 having a ring 18 and the said ring is adapted to engage one of the end convolutions of a helical spring 19. The spring 19 has its opposite end provided with a screw eye 20. The screw is adapted to be inserted through an opening provided in a rib or any other desired portion of the boat or any attachment thereto designated by the numeral 21. The projecting threaded portion of the screw eye 20 is adapted to cooperate with a suitable nut 22, whereby the tension of the spring 19 may be readily regulated.

It will be noted by reference to Fig. 2 of the drawings that the spring 19 is sustained at an angle in relation to the oar lock 9 and the support 7, the object being to at all times retain the lock and support in a substantially parallel plane with the side of the boat 1.

In operation the oar *a* is positioned between the jaws 11 and 12 and assumes the position illustrated by full lines in Fig. 1 of the drawings. The oarsman in his next movement swings the lock 10 to the position shown in Fig. 2 and indicated by dotted lines in Fig. 1 of the drawings. It will be noted that when the oar is brought into the last position the spring 19 is expanded and it is merely necessary for the oarsman to dip the oar blade when the spring 19 will contract and perform the working stroke of the oar. It will be noted that when the working stroke is completed the stop 15 contacts the support 7 to effectively limit the movement of the working stroke of the oar.

To release the oar from the oar lock it is merely necessary to let the oar swing on the pivot 13 until it contacts the stop 15, which relieves the strain of the spring from the oar. By turning the oar toward a parallel

line with the boat, the lock turns in its sockets 3 and 4 and drops free from the oar within the boat.

From the above description, taken in connection with the accompanying drawings it will be noted that I have provided an extremely simple and thoroughly effective device for the purpose intended, and while I have illustrated and described the preferred embodiment of the improvement, as it now appears to me, minor details of construction within the scope of the following claims may be resorted to if desired.

Having thus fully described the invention, what I claim as new is:—

1. In a device for the purpose set forth, a swinging support, an oar lock pivoted at right angles to the support, said oar lock being provided with oppositely disposed U-shaped jaws, a stop upon the lock adapted to contact the support when the lock is in one position, and a spring member connected with the body of the lock, substantially as and for the purpose set forth.

2. In combination with a row boat, spaced plates provided with sockets upon the gunwale of the boat, a rod having its ends offset and engaging within the sockets of the plates, an oar lock, said oar lock comprising a curved body portion having its ends offset to provide oppositely arranged U-shaped jaws, the body of the lock being also provided with a finger arranged in line with the supporting rod, the lock being pivotally connected with the rod adjacent one of its offset jaws, a brace connecting the lock and the rod, a bail upon the lock, a spring connected with the bail, an attaching device for the free ends of the spring and means for regulating the tension of the spring.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES A. LIVINGSTON.

Witnesses:

F. T. LIVINGSTON,
W. E. SCHRICKEK.