No. 708,153. Patented Sept. 2, 1902.

M. A. LINDER.

OAR ATTACHMENT.

(Application filed Dec. 11, 1901.)

(No Model.)



Fig. 1.

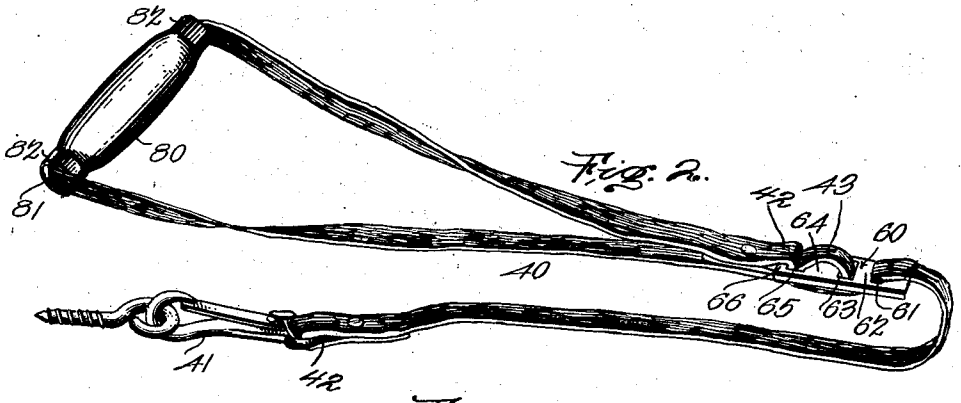


Fig. 2.

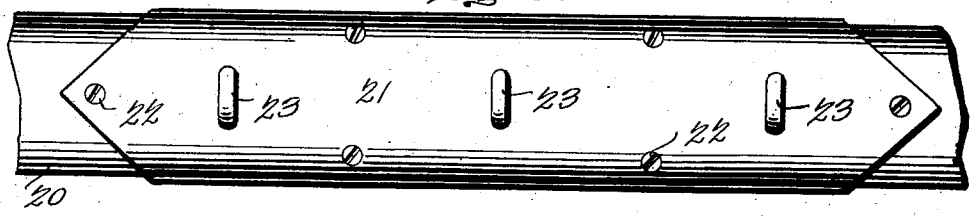


Fig. 3.

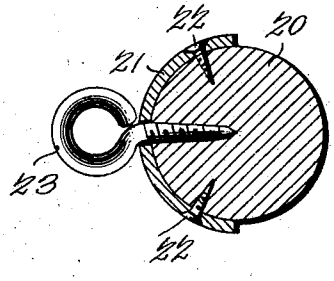


Fig. 4.

Witnesses
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

MONS A. LINDER, OF PULLMAN, ILLINOIS.

OAR ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 708,153, dated September 2, 1902.

Application filed December 11, 1901. Serial No. 85,515. (No model.)

To all whom it may concern:

Be it known that I, MONS A. LINDER, a citizen of the United States, residing at Pullman, in the county of Cook and State of Illinois, have invented a new and useful Oar Attachment, of which the following is a specification.

This invention relates to an attachment for oars whereby other force than that exerted by the arms of the oarsman may be transmitted directly to the oars.

The object of the invention is to provide means for transmitting auxiliary force directly to the oars, which may be operated by the feet and legs of the oarsman or by an assistant and which is attached only to the oars.

Figure 1 of the accompanying drawings represents a perspective view of a row-boat, showing this improved oar attachment applied to a pair of oars and operated by an assistant. Fig. 2 of the drawings represents a perspective view of the attachment detached. Fig. 3 represents a side elevation of an oar, showing the strengthening-plate attached thereto and the means for receiving the snap-hook, the ends of the oars being shown broken off. Fig. 4 represents a transverse section of an oar, showing the fastening means for the improved oar attachment.

The same reference-numerals indicate corresponding parts in all the figures.

In the drawings an ordinary row-boat 10 is illustrated provided with the usual center seat 11 and the stern seat 12. Oars 20 and 30 are shown fulcrumed in the usual manner in rowlocks 13 and 14. These oars are preferably provided each with two leather collars disposed thereon on opposite sides of the rowlocks for holding the oars firmly in place. I will describe the attachment as applied to the oar 20 only. The blade of the oar 20 is preferably provided with a strengthening-plate 21, situated about fifteen inches, more or less, outboard from the loom. This plate extends longitudinally of the oar and is curved transversely to fit the contour of the oar. This plate is fastened to the oar by screws, as 22, or in any other suitable manner. A series of screw-eyes, as 23, extend through said plates and engage the body of the oar.

Auxiliary-force-transmitting devices are shown in the form of straps 40 and 50, and I will describe the strap 40 only. This strap is preferably provided with a snap-hook 41 at one end thereof, which is adapted to engage the screw-eyes, as 23, and so attach the straps to the oar. The hook may be snapped into any of the eyes desired, which serves to regulate the amount of force to be exerted in assisting the oarsman's arms. When the straps engage the oars at the eyes nearest the fulcrum, less assistance is rendered the oarsman than when they engage the eyes nearer the blades of the oars, as will be readily seen. These straps are preferably provided with loops, as 42, at their opposite ends, one of said loops being secured to the end bar of a buckle 60 and the opposite loop to a snap-hook 41. The buckle shown comprises a flat rectangular plate having three slots and intervening cross-bars. In attaching the buckle one end of a strap is passed down from the top of the buckle through the slot 61, then under the cross-bar 62, then up through the slot 63, over the bar 64, down through the slot 65, and under the end bar 66. The strap is then pulled through the buckle and a stirrup-loop formed by bringing the end of the strap back to the buckle 60 and securing the same around the bar 66 to form one of the end loops 42. The other strap 50 is attached in a similar manner to the buckle 70. The stirrup-loops are preferably provided with cylindrical stirrups or handles having openings 81 extending centrally therethrough to receive the straps. The outer ends of these stirrup-pieces are preferably provided with ferrules, as 82.

In the operation of this device when the auxiliary force is to be provided by a companion seated in the stern of the boat 10 the straps 40 and 50 are attached to the oars at any desired point by snapping the respective hooks, as 41, into the screw-eyes secured to the oars. The stirrups 80 and 90 are then grasped, one in either hand of the person in the stern, and the ends of the oars being held by the oarsman on the center seat the boat is ready to be rowed. The oarsman then leans forward, drawing the blades back, and inserts them in the water. The person on the stern seat also bends forward simultaneously to permit the oars to be readily dipped into the

water. The oarsman then pulls on the oars and the assistant pulls back on the straps and together they easily overcome the resistance of the water, and the boat is shot forward rapidly and with less exertion on the part of either operator than if one of them were working alone with his arms only.

This auxiliary-force-transmitting device may also be used by the oarsman without the aid of a companion. When it is desired to so use the device, the feet of the oarsman are inserted in the stirrups, the snap-hooks are attached to the oars in the manner above described, and the device is then ready for operation. The oarsman in dipping the oars for a stroke draws up his legs in a manner similar to the position assumed when using a sliding seat. He then dips in the blades, pulls on the oars, and straightens out his legs, with his feet in the stirrups. The stroke is thus made much quicker, much easier, and sends the boat along with a greater speed.

By the use of this device about thirty per cent. in speed is gained over the old method of rowing with the arms only and the device produced is simple and may be used with any form of row-boat without altering the structure thereof.

The plates, as 21, are preferably attached to the oars at a point on a plane with the flat front face of the blades relative to their stroke, so that in pulling on the straps the blades are reliably directed through the water. The assistant seated in the stern of the boat may direct the course of the boat, if desired, by pulling harder on one oar than on the other through the straps attached to said oars, thereby rendering it unnecessary for the oarsman to guide or look out for obstacles.

I claim as my invention—

1. The combination with an oar, of an auxiliary flexible power-transmitting device connected at one end to the oar at a point outboard from the loom, and an engaging loop disposed at the opposite end of said device.

2. The combination of an oar, flexible means attached to said oar at a point outboard from the loom for directly transmitting auxiliary force thereto, said means being provided with a loop for engagement by an assistant.

3. The combination of an oar, an adjustable strap for directly transmitting auxiliary force to said oar, said strap being attached at one end to said oar at a point outboard from the loom and having a loop at its other end provided with a stirrup.

4. An oar attachment comprising a strap provided with means at one end for removably engaging an eye on an oar at a point outboard from the loom, and at the other end with an adjustable loop having a stirrup.

5. The combination of an oar, a plate attached to said oar outboard from the loom and having a series of eyes disposed thereon, and a strap provided with means for removably engaging said eyes.

6. The combination of an oar, a plate attached to said oar outboard from the loom and having a series of eyes disposed thereon, and a strap provided with means for removably engaging said eyes, said strap also having a stirrup attached thereto.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

MONS A. LINDER.

Witnesses:
FRANK HOLMBLAD,
GEORGE R. HILLSTROM.