## R. B. HANSON. BOW FACING OAR.

(Application filed Jan. 16, 1902.) (No Model.) R.B.Hanson, Witnesses

Cittorneys

## United States Patent Office.

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## BOW-FACING OAR.

SPECIFICATION forming part of Letters Patent No. 706,491, dated August 5, 1902.

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To all whom it may concern:

Be it known that I, RICHARD B. HANSON, a citizen of the United States, residing at Buffalo, in the county of Erie, State of New York, 5 have invented certain new and useful Improvements in Bow-Facing Oars; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to oars in general, and more particularly to the class of bowfacing oars; and it has for its object to provide an oar and a lock therefor which will permit of propulsion of a boat in the direction the oarsman faces, a further object of the invention being to provide a construction which will be easy of operation, will permit of freedom of movement of the oars, and which may be applied to any boat and as readily removed therefrom.

Other objects and advantages of the invention will be understood from the following description.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a top plan view showing a portion of a gunwale of a boat with the present invention attached thereto, portions of the oar being broken away. Fig. 2 is a transverse section through one of the clamps on line 2 2 of Fig. 1 and looking in the direction of the gears. Fig. 3 is a plan view of the clamping or base plate. Fig. 4 is a bottom plan view of the rocker.

Referring now to the drawings, the present invention includes a base-plate 10, preferably of skeleton form and at each end of which is a clamp including depending spaced ears 11 and 12, adapted to lie at opposite sides of a gunwale, and through one of these ears is formed a threaded perforation 13 for engagement of a clamping-screw 14. On the inner face of the opposite ear or jaw is formed a rib 15, which is drawn into the material of the gunwale when the screw is turned up and holds the clamp securely in place.

At the central portion of the plate 10 is 50 formed a cross-sectionally rectangular upwardly-directed box 16, the sides 17 of which

lie transversely of the plate, having their upper edges convex to form bearing-faces for the rocker that carries the gears. The rocker in question is shown at 18 and has a 55 central depending lug 19 of segmental shape and which is fitted in the box 16, said rocker having convex bearing-faces 20, extending longitudinally of the rocker at opposite sides of the lug and which in practice rest upon 60 the faces of the sides 17, so that the ends of the rocker may be alternately depressed to give a rocking motion thereto. In the ends of the rocker are perforations through which are engaged pivot-bolts 21 and 22, on which 65 are pivotally mounted the segmental gears 23 and 24, having rearwardly-extending stems 25 and 26, as shown. The segmental gears mesh, and to hold the upper ends of the pivot-bolts from outward displacement a re- 70 taining-plate 27 is provided and through the ends of which the pivot-bolts are engaged, nuts 28 being engaged with the bolts above the retaining-plate. Thus if the stem of one gear be moved the stem of the other gear will 75 move in the same direction longitudinally of the base-plate of the device. To the stems of the gears are connected the handle and blade portions, respectively, of an oar, the adjacent ends of said sections being slotted 80 to receive the stems of the gears, after which retaining bolts or rivets are passed through the parts to hold them together.

With this construction it will be seen that when the oarsman pulls upon the handle of the 85 oar the blade of the oar moves in the same direction instead of in the opposite direction, as is usual, so that the oarsman will face in the direction of movement of his boat. Furthermore, when the handles of the oars are depressed the blades of the oars will be raised from the water, as is usual, the rocker having a bearing upon the upper edges or faces of the sides of the box 16, so that there is a minimum of friction.

What is claimed is—

1. A device of the class described comprising a base-plate having a boxing thereon provided with upper bearing-faces, a rocker having a lug disposed within the boxing and having bearing-faces disposed against the corresponding faces of the boxing, and intermesh-

ing gears mounted at opposite ends of the rocker and having opposite end sections of oars attached thereto.

2. A device of the class described compris-5 ing a base-plate having convex bearing-faces, a rocker having convex bearing-faces disposed against those of the base-plate, means for holding the bearing-faces in mutual operative relation, and gears pivoted at opposite ends of the rocker and intermeshing, said |

gears having means for attachment of handle and blade sections of oars thereto, respec-

tively.

3. A device of the class described compris-15 ing a base-plate having terminal clamps for engagement with the gunwale of a boat, an

inclosure upon the plate having bearing-faces at its upper edge, a rocker having a depending lug disposed within the inclosure and having convex bearing-faces at the sides 20 thereof resting upon the bearing-faces of the inclosure, and intermeshing gears arranged respectively at opposite ends of the rocker, said gears having means for attachment of oar-sections thereto.

In testimony whereof I affix my signature

in presence of two witnesses.

RICHARD B. HANSON.

Witnesses:

JOHN P. WANNEMACHER, THOMAS A. CAVANAUGH.