

D. DUHL.
 BOW FACING OAR.
 APPLICATION FILED MAY 6, 1912.

1,034,431.

Patented Aug. 6, 1912.

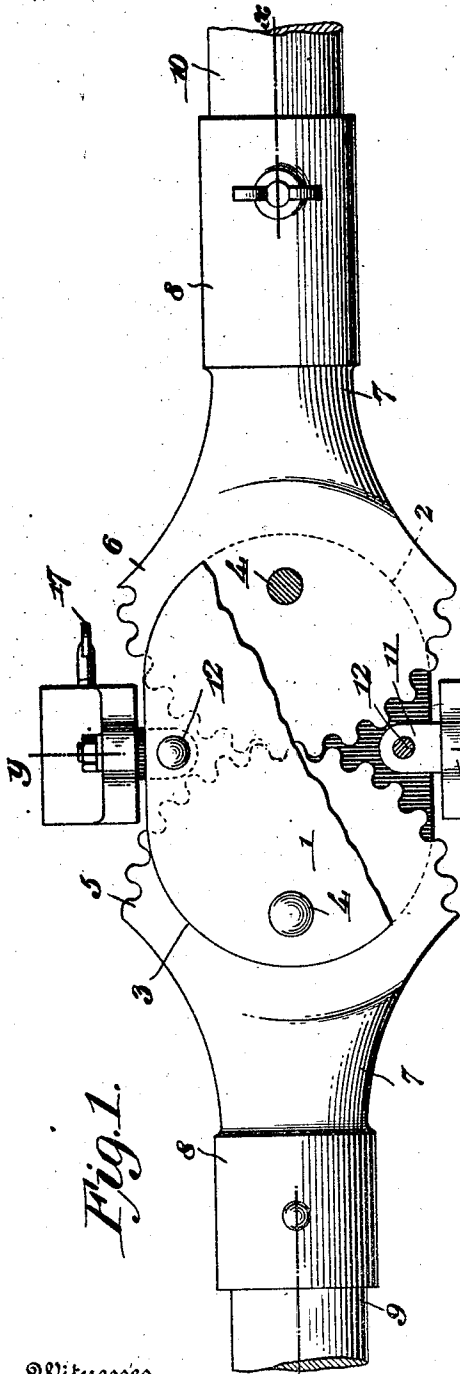


Fig. 1.

Witnesses

W. B. Galt.
H. S. Austin

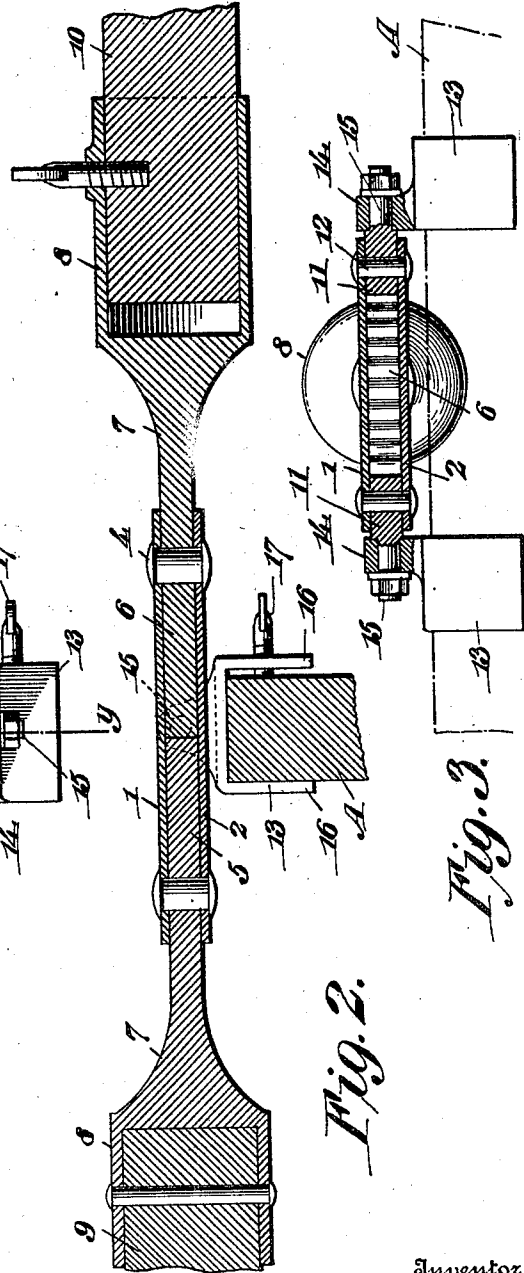


Fig. 2.

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UNITED STATES PATENT OFFICE.

DANIEL DUHL, OF WELLSTON, OHIO.

BOW-FACING OAR.

1,034,431.

Specification of Letters Patent.

Patented Aug. 6, 1912.

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To all whom it may concern:

Be it known that I, DANIEL DUHL, a citizen of the United States, residing at Wellston, county of Jackson, and State of Ohio, have invented certain new and useful Improvements in Bow-Facing Oars, of which the following is a specification.

My invention relates to rowing devices or oars and particularly to that class thereof known as bow facing oars.

The object of my invention is to provide an improved device of the class mentioned whereby the oarsman may face the bow of the boat and at the same time propel the boat with the same stroke as used with the ordinary oar.

A further object of my invention is to provide a device of the class mentioned which may be readily secured by any one to the gunwale of a boat without the use of tools and irrespective of the curvature of the gunwale at the place of attachment.

Other objects will appear hereinafter.

With these objects in view my invention consists generally in a housing comprising a pair of parallel substantially horizontal plates, a pair of intermeshing segment gears rotatably mounted between the plates and each provided with a socket to receive the shanks of the oar blade and handle respectively, and a pair of brackets swiveled between the plates of the housing and provided with clamps for engaging the gunwale.

My invention further consists in various details of construction and arrangements of parts all as will be fully described hereinafter and particularly pointed out in the claims.

My invention will be more readily understood by reference to the accompanying drawings forming a part of this specification and in which—

Figure 1 is a top plan view of a rowing device embodying my invention in its preferred form, a portion of the top plate of the housing being broken away, Fig. 2 is a vertical longitudinal section on substantially the line $x-x$ of Fig. 1, and Fig. 3 is a transverse section on the line $y-y$ of Fig. 1.

Referring now to the drawing 1 and 2 indicate the upper and lower plates respectively which form the housing. These are arranged substantially horizontal and parallel and are preferably provided or formed

with rounded ends 3. Rotatably mounted between the plates 1 and 2 upon pins or rivets 4 which serve to secure said plates together, is a pair of intermeshing segment gears 5 and 6, each provided with a radially extending stem 7 terminating in a socket 8 to receive the shanks 9 and 10 of the oar blade and handle respectively.

In order to attach the housing and the contained mechanism to the gunwale of the boat I provide the same with a pair of brackets each formed with a clamp to engage the gunwale, and in order that the device may be readily secured to the side of any row boat irrespective of the curvature of the gunwale I pivotally connect the clamps to the housing. To this end each bracket comprises a block 11 swiveled between the plates 1 and 2 at the sides thereof, upon pins 12, and a clamp 13 connected thereto. To permit the oar to be raised and lowered in the ordinary manner, I prefer to swivel the block 11 upon the clamp 13 so that the housing and mechanism may readily turn upon a horizontal transverse axis. Accordingly, each clamp 13 is formed with an upwardly projecting ear or lug 14 and the block 11 is formed with a horizontally projecting pin 15 swiveled in the ear 14, as shown clearly in Fig. 3. To facilitate attaching the device to the gunwale the clamps are formed of a pair of depending members 16 adapted to embrace the gunwale and threaded through one of said members is a thumb screw 17.

The manner of attaching the device to the boat and of operating the same is obvious and does not need detail description.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is:—

1. In a device of the class described, a housing comprising a pair of parallel substantially horizontal plates, a pair of intermeshing segment gears rotatably mounted between said plates, sockets formed on said gears, to receive the shanks of an oar blade and handle respectively, a pair of brackets swiveled between the plates of said housing to turn upon a vertical axis, and clamps formed on said brackets, substantially as described.

2. In a device of the class described, a housing comprising a pair of parallel substantially horizontal plates, a pair of in-

termeshing segment gears rotatably mounted between said plates, sockets fixed to said gears to receive the shanks of an oar blade and handle respectively, a pair of blocks
5. swiveled between the plates at the sides thereof and each provided with a horizontally extending pin, clamps adapted to be secured to the gunwale of a boat and formed with upwardly extending ears, said pins be-

ing swiveled in said ears, substantially as 10 described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

DANIEL DUHL.

Witnesses:

PEARL RISLEY,
EDWARD DUHL.