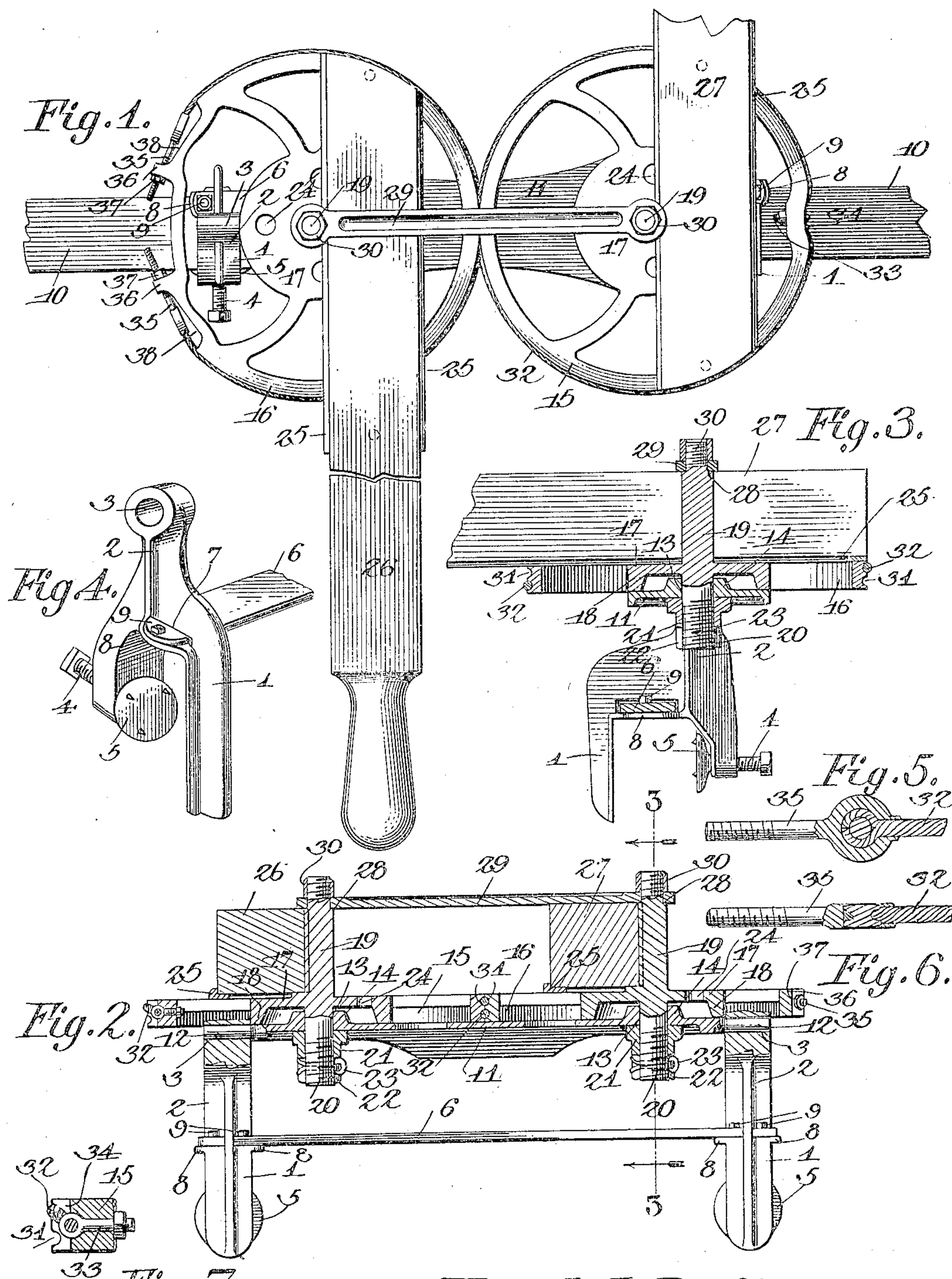


No. 808,720.

PATENTED JAN. 2, 1906.

F. L. BUFF.  
BOW FACING OAR.  
APPLICATION FILED MAY 3, 1905.



Witnesses  
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# UNITED STATES PATENT OFFICE.

FRANK L. BUFF, OF EATON, ILLINOIS.

## BOW-FACING OAR.

No. 808,720.

Specification of Letters Patent.

Patented Jan. 2, 1906.

Application filed May 3, 1905. Serial No. 258,645.

*To all whom it may concern:*

Be it known that I, FRANK L. BUFF, a citizen of the United States, residing at Eaton, in the county of Crawford and State of Illinois, have invented a new and useful Bow-Facing Oar, of which the following is a specification.

This invention relates to bow-facing oars, and has for its object to improve the same in the manner of mounting and connecting the oscillating members which carry the handle and blade sections of the oar, so as to facilitate the assemblage of these parts and permit convenient oiling of the bearings.

A further object of the invention is to provide for conveniently taking up slack in the connection between the oscillating oar-carrying members, thereby to offset wear and to insure prompt simultaneous action of said members.

A still further object of the invention is to enable the convenient mounting of the device upon the gunwale of a boat in such a manner as to permit the ready detachment thereof whenever desired without disconnecting any of the operating parts of the device.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings, Figure 1 is a plan view of a bow-facing-oar apparatus embodying the features of the present invention. Fig. 2 is a longitudinal section thereof. Fig. 3 is a cross-sectional view on the line 3-3 of Fig. 2. Fig. 4 is a detail perspective view of one of the supporting-clamps. Figs. 5 and 6 are detail sectional views at right angles to one another of one of the devices for tightening the cable connection between the oscillating members. Fig. 7 is a detail sectional view showing the means for anchoring the middle portion of the cable.

Like characters of reference designate corresponding parts in each and every figure of the drawings.

For the support of the several parts of the present device there is provided a bracket consisting of a pair of inverted substantially

U-shaped clamps designated 1, each of which is extended at its upper end into a standard 2, terminating at its upper end in a bearing-eye 3. One side of the clamping member is shorter than the other and is pierced by a headed clamping-screw 4, having a button 5 swiveled upon the inner end of the screw, so as to work back and forth between the sides of the clamp. The opposite clamps are connected by a cross-bar 6, which passes through a slot or opening 7 in the top of each clamp and rests upon inner and outer flanges 8, provided upon the clamp, suitable fastenings 9 being passed through the cross-bar and the flanged portions of the clamp, whereby the cross-bar and the two clamps are connected to form a rigid bracket. The U-shaped clamping members are designed to straddle the gunwale of the boat, a portion of which has been shown at 10 in Fig. 1 of the drawings with the clamping-screws at the inner side of the boat, so that by tightening the screws the bracket will be rigidly and detachably supported upon the gunwale.

Between the upper portions of the clamping members there is an oscillating base member 11, provided at opposite ends with trunnions 12, mounted to oscillate in the bearings 3. This base-plate is pierced by a pair of spaced openings 13, each of which is surrounded by an upstanding integral annular boss 14. A pair of skeleton disks or drums 15 and 16 are mounted concentrically with respect to these openings, each disk being provided with a hub 17, having a pendent annular rim or flange 18 working upon the top of the base 11, there being a post 19 rising centrally from the hub and a spindle 20 depending concentrically from the hub and projected through the adjacent opening 13, in which the spindle is designed to rotate. The projected lower portion of the spindle is threaded, and a nut 21 is fitted thereon, so as to bear against the under side of the base 17 to prevent upward displacement of the disk. The lower end of this nut is provided with an annular series of edge notches, and a cotter-pin 23 is passed through the spindle 20 and also through diametrically opposite notches of the nut to lock the latter upon the spindle for simultaneous rotation therewith. It will here be noted that there is an annular space between the respective disks 15 and 16 and the base 11, said annular space being bounded by the rim 18 and constitutes an oil-chamber into which oil may be introduced through



one or more openings 24 in the top of the hub of the disk. A pair of substantially parallel upstanding flanges 25 extend across the top of each disk and define a seat for the reception of a handle-section 26 upon one of the disks and a blade-section 27 upon the other disk, suitable threaded fastenings being passed through the disks and the oar-sections to rigidly connect the same. The oar-receiving seats are adjacent and at the same sides of the posts 19, the latter being reduced and threaded at their upper ends to produce shoulders 28 for the support of a tie-bar 29, which is pierced at opposite ends by the threaded upper extremities of the posts, suitable retaining-nuts 30 being fitted to the tops of the posts to hold the tie-bar in place. The peripheries of the two disks or drums are provided with pairs of corresponding annular grooves or channels 31 for the reception of a wire cable 32, the intermediate portion of which embraces the drum or disk 15 and is anchored thereto by means of an eyebolt 33, the external periphery of the drum being provided with a seat or recess 34 for the reception of the eye of the bolt, so as to avoid a peripheral projection at this point. The two disks or drums have their peripheries in close proximity, and the opposite portions of the cable cross between the drums or disks, so as to pass in one direction around one drum and in the opposite direction around the other drum. Each extremity of the cable is connected to a threaded stem or bolt 35, which is passed through a threaded opening in a radial lug or projection 36 upon the periphery of the drum 16, there being a suitable nut 37 fitted to the threaded stem for the purpose of tightening the cable and taking up slack which may occur therein. The shoulder or projection 36 is preferably formed by the provision of an elongated socket or recess 38 in the outer peripheral edge of the drum in order that the outer end of the shoulder may lie in the same circular plane as the outer peripheral edge of the drum and also to permit the point of connection between the cable and the bolt to lie within the socket or recess without producing a peripheral projection.

From the foregoing description it will be understood that the cable connection between the two drums operates to rotate or oscillate the disk or drum 15 in a direction opposite to that of the drum 16, whereby when the handle is moved forward the blade is also moved forward and when the handle is pulled aft the blade is also drawn aft or in

a rearward direction, thereby propelling the boat forward in the direction toward which the rower is facing. By reason of the tiltable or oscillating mounting of the base 11 upon the supporting-bracket the oar may be vertically tilted in the usual manner to dip the blade into the water and to elevate it out of the water in the usual manner.

The entire device may be conveniently removed from the boat merely by loosening the screws 4 and lifting the device from the gunwale, wherefore the device may be conveniently transferred from one boat to another without requiring that any of the operating parts of the device be disconnected.

Having fully described the invention, what is claimed is—

1. In a device of the class described, the combination with a supporting-bracket, of a base mounted to tilt vertically thereon and provided with a pair of spaced openings, drums having hubs disposed concentrically with the respective openings and provided with pendent spindles rotatably passing through said openings, peripheral flanges pendent from the hubs and working upon the base-plate, the spaces between the hubs and the base-plate constituting oil-reservoirs, retaining-heads detachably carried by the lower ends of the spindles, means connecting the two drums for simultaneous movement in opposite directions, and means for connecting a handle-section and a blade-section to the respective drums.

2. In a device of the class described, the combination with a supporting-bracket, of a base-plate mounted to tilt vertically thereon and provided with a pair of spaced openings, a pair of drums having hubs disposed concentrically with respect to the openings and provided with pendent peripheral flanges working upon the base-plate, spindles pendent from the hub and rotatably passing through the openings, retaining-heads detachably carried by the lower ends of the spindles, the annular spaces between the hubs and the base-plate constituting oil-chambers, posts rising centrally from the hubs, a tie-bar connecting the upper ends of the posts, and means for connecting a handle-section and a blade-section to the respective drums.

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

FRANK L. BUFF.

Witnesses:

J. O. KING,

C. B. COULTER.