L. M. DOAN.

ROWBOAT.

APPLICATION FILED MAY 31, 1911.

997,971. Patented July 18, 1911.

Fig. 1

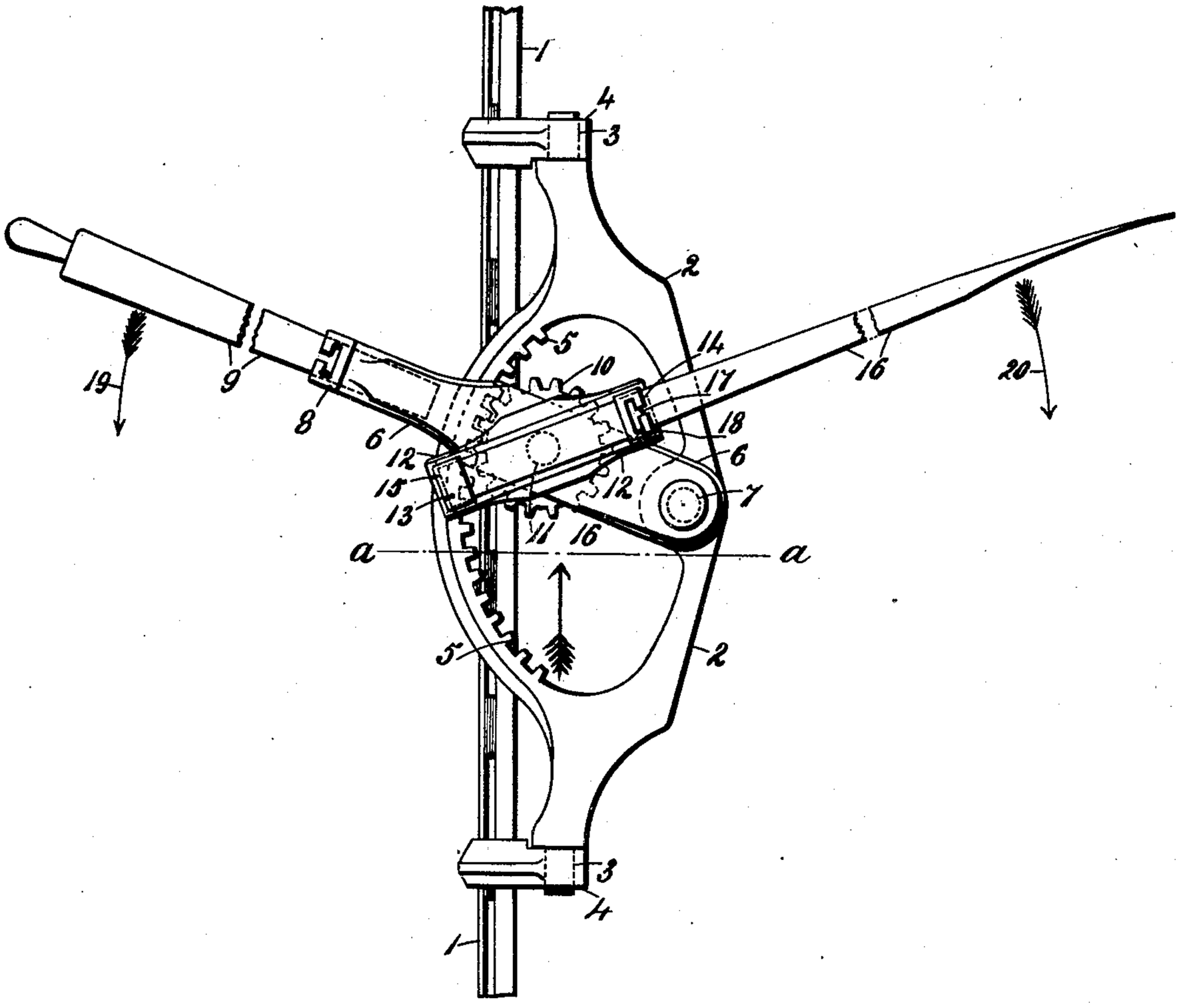
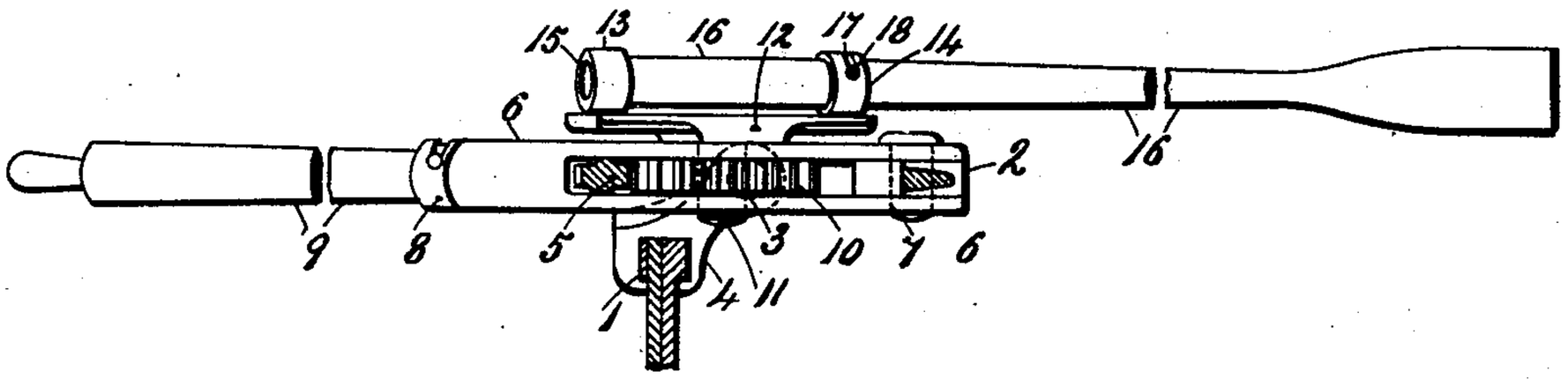


Fig. 2



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UNITED STATES PATENT OFFICE.

LACHLAN MACALLUM DOAN, OF GYPSUM MINES, ONTARIO, CANADA.

ROWBOAT.

997,971. Specification of Letters Patent. **Patented July 18, 1911.**

Application filed May 31, 1911. Serial No. 630,455.

To all whom it may concern:

Be it known that I, LACHLAN MACALLUM DOAN, a citizen of the Dominion of Canada, residing at Gypsum Mines, in the county of Haldimand, in the Province of Ontario, Dominion of Canada, have invented new and useful Improvements in Rowboats, of which the following is a specification.

This invention relates to rowboats, and more particularly to that type provided with an outrigger or outriggers at one or both sides thereof which are adapted to swivel thereon and support a rowing handle and oar.

The main object of my invention is to provide a simple and effective means whereby the rower is enabled to propel the boat in a forward direction, or in other words said boat is driven in a direction facing the rower.

A further object of my invention is to provide means whereby the dip of the oar or oars is more uniformly insured, while when desired, the oar or oars may be completely lifted clear of the water without danger or undue exertion.

A still further object of my invention consists in providing a simple means whereby the oar or oars can be brought into alinement with the gunwale in either direction without displacement.

These and other objects as will be apparent as the description proceeds, are attained by the mechanism illustrated on the accompanying sheet of explanatory drawings, in which:—

Figure 1, is a plan of my improved rowing mechanism attached to the top of the right-hand gunwale of a rowboat, only as much of said rowboat being shown as is necessary for a clear understanding of my invention. Fig. 2, is a sectional elevation of the same taken on the line *a*—*a* in Fig. 1, and looking in the direction of the black arrow or forwardly.

Like reference characters designate the same parts in the two views.

In the drawings 1, indicates the right-hand gunwale of a rowboat and it is broken away as above stated.

2, is the outrigger, which is, according to my invention, formed somewhat elliptical in configuration or plan, and it is provided at its forward and after ends with journals 3, 3, conveniently mounted and adapted for oscillation in rigid bearings, 4, 4, fitted snugly on the aforesaid gunwale 1, by any appropriate means, such as bolts or rivets. Interiorly of the outrigger 2, and on that part adjoining the gunwale 1, I form a toothed segment 5, for the purpose hereafter to be explained.

6, is a fork lever which is pivotally connected to the outer part of the outrigger 2, by means of a pin or stud 7. This fork lever 6, is preferably fashioned at its inner end hollow and is capped by a suitable bayonet slotted cap-piece 8, which is adapted to receive and firmly retain in position the tapered outer end of the rowing handle 9. It is particularly to be noted that I form the bayonet cap-piece 8, so that the rowing handle 9, may be turned and fixed in either a forward or after direction.

10, is a spur-wheel, journaled in the fork lever 6, and it is adapted to rotate therein upon a stud or pin 11. Secured to or formed integral with the upper end of the stud or pin 11, is a base or seating 12, which is adapted to rotate simultaneously with the spur-wheel 10, in the well known way; that is to say, said spur-wheel and base or seating are firmly secured to or formed integral with, the concentric stud 11. Suitably secured upon the base or seating 12, are socket locks 13, 14, the former whereof is provided with an inturned flange 15, against which abuts the inner end of the oar 16. The socket lock 14, is preferably fashioned with a T-shaped bayonet lock 17, whereby the oar 16, is locked in either a forward or after direction by means of a pin 18, as will be readily understood on an examination of the drawings.

In operation, the handle 9, is pulled in the direction indicated by the arrow 19, extending therefrom, whereupon the forked lever 6, is similarly directed, that is toward the after end of the row-boat. Consequent upon this movement the spur-wheel 10, is rotated upon its axis or pin 11, and thereby caused to traverse over the sector 5, on the outrigger 2. This rotation of the spur-wheel 10, produces a consequential movement of the base or seating 12, whereby the oar 16, is operated in the same direction as the handle 9, that is, pulled toward the stern of the boat as indicated by the arrow 20, extending therefrom, whereupon the rowboat is propelled in a direction facing the rower. When the inner end of the forked lever 6, is raised by means of the

handle 9, the outrigger 2, is swung about its journals 3, 3, and the oar 16, is dipped more or less into the water. A reverse movement, or the lowering, of the handle 9, raises the oar 16, from out of the water, acocrding to requirements. Furthermore by swinging the forked lever 6, over to either of its extreme positions and turning the outrigger 2, into a vertical plane the oar 16, can be brought into a parallel position alongside the gunwale 1, in either direction without removal of any of the parts or the detachment of the mechanism from the boat.

Changes in the details of construction of the several parts, and various other combinations or arrangements of the same may be had without departing from the field and scope of my invention, and it is meant to include all such within this application, wherein only the preferred form and shape has been exemplified.

What I claim as my invention and desire to secure by Letters Patent, is:—

1. A rowboat, bearings rigidly secured on and to the sides thereof, an outrigger adapted to extend over the side of the boat and to swivel in said bearings, a toothed segment formed integral within said outrigger, a lever pivoted to the outer side of said outrigger, a spur-wheel pivoted to said lever within said outrigger and adapted to mesh with the aforesaid toothed segment, a seating secured to the upper end of the axis of the spur-wheel and adapted for rotation therewith, socket locks secured upon said seating one of which is provided with an inturned flange and the other with a T-shaped bayonet lock, an oar adapted for removable attachment to said socket-locks, and a handle detachably secured to the inner end of the aforesaid lever whereby the boat is rowed in a direction facing the rower.

2. The combination with a rowboat of bearings spaced a distance apart and rigidly secured on both sides thereof in horizontal alinement, hollow outriggers partially internally toothed adapted to extend over the sides of the boat and to swivel in said bearings, a forked lever pivoted to the outer side of each said outrigger, a spur wheel pivoted within each said forked lever and adapted to mesh with the aforesaid toothed parts of the outrigger, a seating secured to the upper end of the axis of each spur wheel and adapted for rotation therewith, socket locks secured upon said seatings, oars adapted for removable attachment to said socket locks, and handles detachably secured to the inner ends of the aforesaid forked levers, all constructed substantially as shown for the purpose specified.

Signed at Hamilton, Ontario, Canada, the 22nd day of May, 1911.

L. M. DOAN.

Witnesses:
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