L. M. DOAN.

ROWBOAT.

APPLICATION FILED JULY 9, 1910.

982,202. Patented Jan. 17, 1911.

Fig. 1.

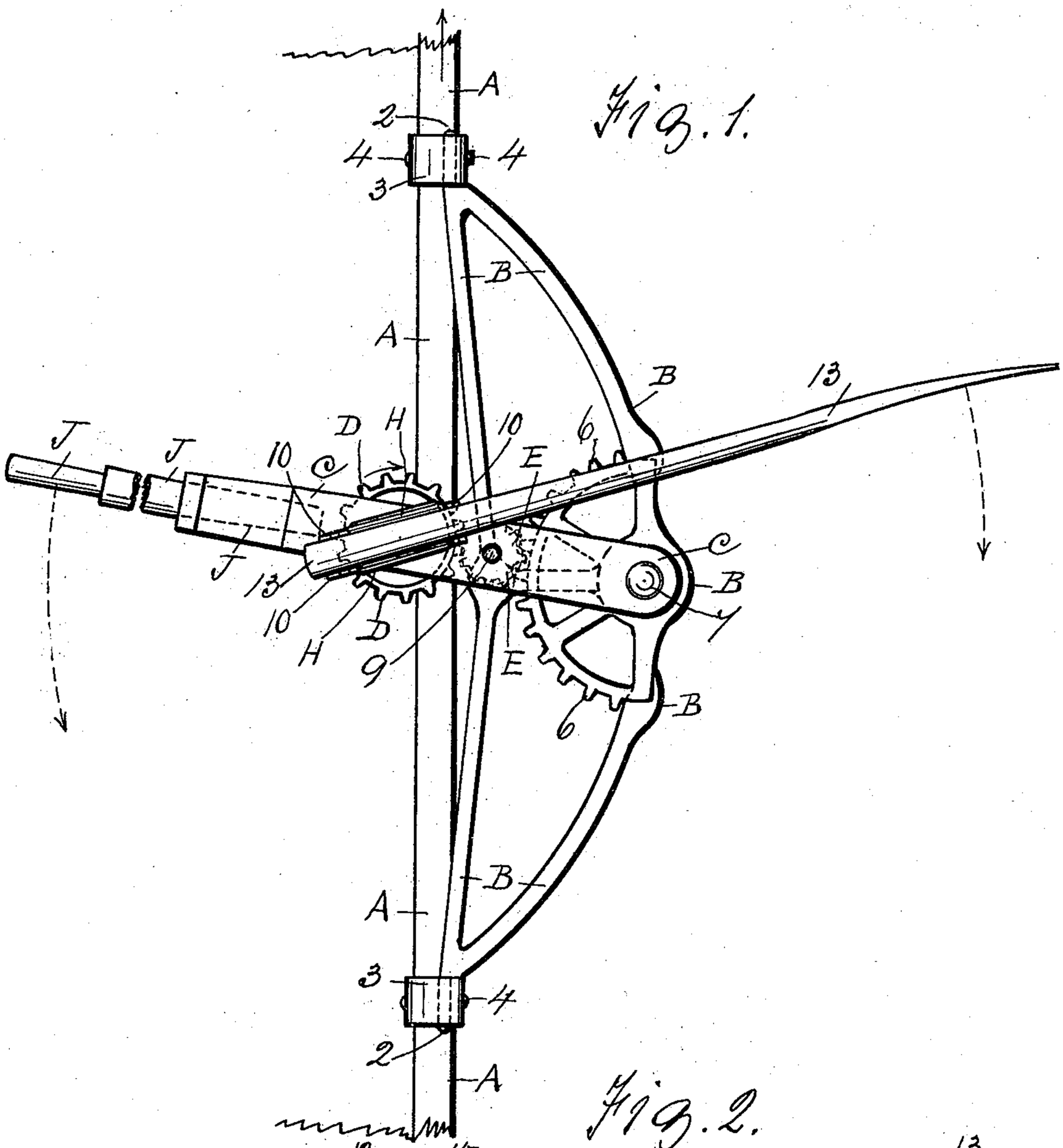
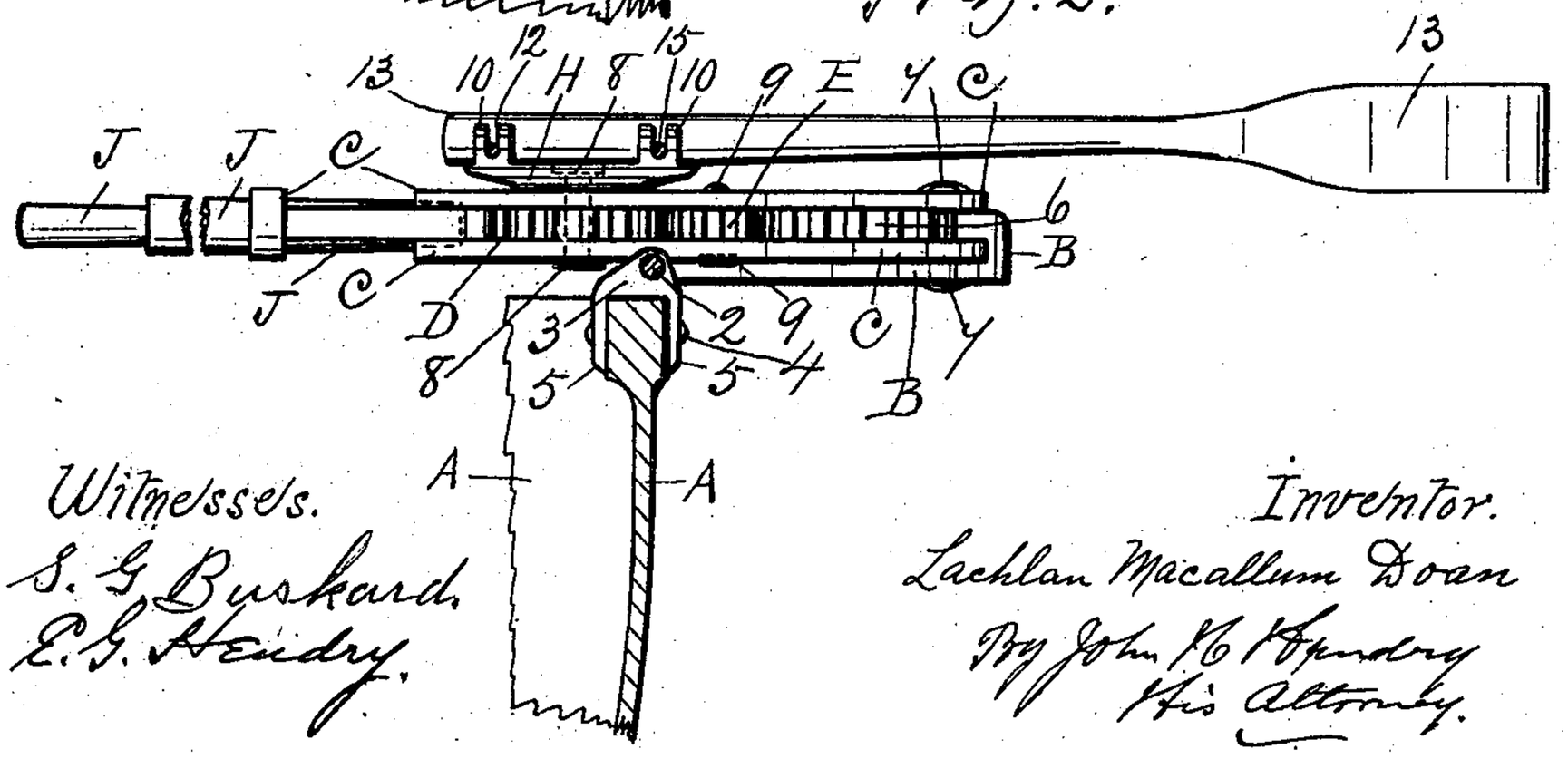


Fig. 2.



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UNITED STATES PATENT OFFICE.

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ROWBOAT.

982,202. Specification of Letters Patent. **Patented Jan. 17, 1911.**

Application filed July 9, 1910. Serial No. 571,151.

To all whom it may concern:

Be it known that I, LACHLAN MACALLUM DOAN, a subject of the King of Great Britain, and resident of Gypsum Mines, in the county of Haldimand, in the Province of Ontario, Canada, have invented new and useful Improvements in Rowboats, of which the following is a specification.

My invention relates to improvements in rowboats, in which an outrigger, or bracket is attached to one or both sides of a boat and projecting over the boat, and adapted to swivel thereon, and a rowing handle, and an oar, connected therewith.

The objects of my invention are, first, to provide means on a rowboat which will row the boat in an opposite direction to the direction of the rowing handle and oar, that is, in the direction facing the rower, second,— to provide means whereby the rower may easily dip the oar more or less in the water at pleasure, third, to provide means whereby the rower may raise the oar completely out of the water and considerably above, fourth, to provide means whereby the rower may bring the oar to about parallel position with the boat, and in either direction, without removing the oar, and fifth, to afford facilities for attaching and removing the rowing device, or mechanism, from the boat. I attain these objects by the mechanism illustrated in the accompanying drawing, in which:—

Figure 1 is a plan of the rowing mechanism attached to the top of the right-hand side of a rowboat, which is shown broken, the direction which the boat is rowed is indicated by arrow on the forward or bow end part of the boat. Fig. 2 is an elevation of the same, showing the side of the boat in section, and as viewed from the stern part of the boat.

Similar letters refer to similar parts throughout the several views.

In the drawing, the right-hand side of the boat is indicated by A, and is shown broken at both ends.

B, is an outrigger, or bracket, extending over the side of the boat, and has end journals 2, which are adapted to swivel, or rotate, in the rigid bearings 3, which fit snugly on the top of the boat and are securely fastened thereto by means of bolts, or rivets 4, which extend through the side flanges 5, of said bearings and through the side A, of the boat. The toothed segment 6, forms a part of the bracket B and is rigid therewith, and the outer end part of the fork lever C, is pivotally connected to the outer part of the bracket B, by means of a pin, or stud 7.

D, is a spur wheel journaled in the fork of the lever C, and is adapted to loosely rotate therein, on its concentric stud, or pin 8.

E, is an intermediate pinion wheel which meshes in the segment 6 and in the spur wheel D, which is adapted to rotate on its concentric pin 9, which extends through the forked part of the lever C. On the lever C is a base, or seating H, which is adapted to rotate simultaneously with the wheel D, together with the concentric pin 8. The seating H, and the wheel D, operate together as one, and both are secured to, and rigid with the pin 8. The pin 8 operates loosely in the forks of the lever C. The inner end part of the lever C, has a suitable horizontal socket to allow the insertion of the tapered outer end part of the rowing handle J, which is adapted to fit snugly in said socket, and to be withdrawn therefrom. The seating H is provided with suitable socket locks 10, having notches 12, and the inner end part of the oar 13, is provided with pins 15, projecting from the sides thereof adapted to fit into said notches that the oar may be locked on the seating, and may be easily removed therefrom. It will be noticed that the lever C together with its handle J, may be operated in opposite directions as far as the teeth on the rigid segment 6 extend in the semi-circle.

In Fig. 1 of the drawing the broken pitch line E, represents the intermediate pinion wheel, said wheel being hidden by the lever C; in Fig. 2 of the drawing the wheels D and E, are shown in mesh with one another and the pinion wheel E is shown in mesh with the segment 6.

When in operation the handle J, is pulled in the direction indicated by arrow extending therefrom, consequently the lever C is brought in the same direction, that is, toward the stern of the boat, simultaneously the pinion wheel rotates loosely in the rigid segment 6, the pinion then rotates the wheel D, thereby the oar 13 is operated in the same direction as the handle J, that is, pulled toward the stern of the boat, as indicated by arrow extending from the oar, the boat being rowed in the direction facing the rower. When the lever C, by means of its handle J, is raised, the oar is dipped in the water more or less, and when the handle is

lowered the oar is raised from the water, more or less, according to desire and conditions. In order to remove the device from the boat, it is necessary to remove one bolt 4, the whole device can then be removed, excepting the similar end bearing 3.

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

1. A rowboat, bearings rigidly secured on and to the side thereof, a bracket extending over the side of the boat and adapted to swivel in said bearings, a segment secured to, or forming an integral part of the bracket, a lever concentrically pivoted to said segment, a spur wheel journaled to the lever, a seating on the lever concentric with the wheel and adapted to rotate therewith, an oar removably locked on the seating, and an intermediate wheel journaled to the lever, and meshing in the segment and in the spur wheel, said lever adapated to operate the oar in the same direction, thereby rowing the boat in an opposite direction and in a direction facing the rower.

2. A rowboat, bearings secured to the sides thereof, a bracket extending over the side of the boat and adapted to swivel in the bearings, a segment forming an integral part of, and on the bracket, a lever concentrically pivoted to the segment and extending in the boat, a spur wheel journaled to the lever, a seating on the lever concentric with the wheel and adapted to rotate therewith, an oar removably locked on the seating, means engaging with the segment and the wheel, to rotate the seating, and means connected to the lever to operate said lever and oar, in one direction, and the boat in the opposite direction, and facing the rower.

3. In a rowboat, bearings a distance apart from one another and in horizontal alinement rigidly attached to a side of the boat, a bracket overhanging the side of the boat and between said bearings and adapted to swivel therein, a segment on and rigid with the bracket, a lever handle concentrically pivoted to the segment, and opposite end of the lever handle extending in the boat, means journaled in the lever and engaging with the segment, a seating on the lever concentric with one of said means and adapted to rotate in either direction therewith, and an oar locked on said seating and adapted to removal therefrom.

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Witnesses:
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