

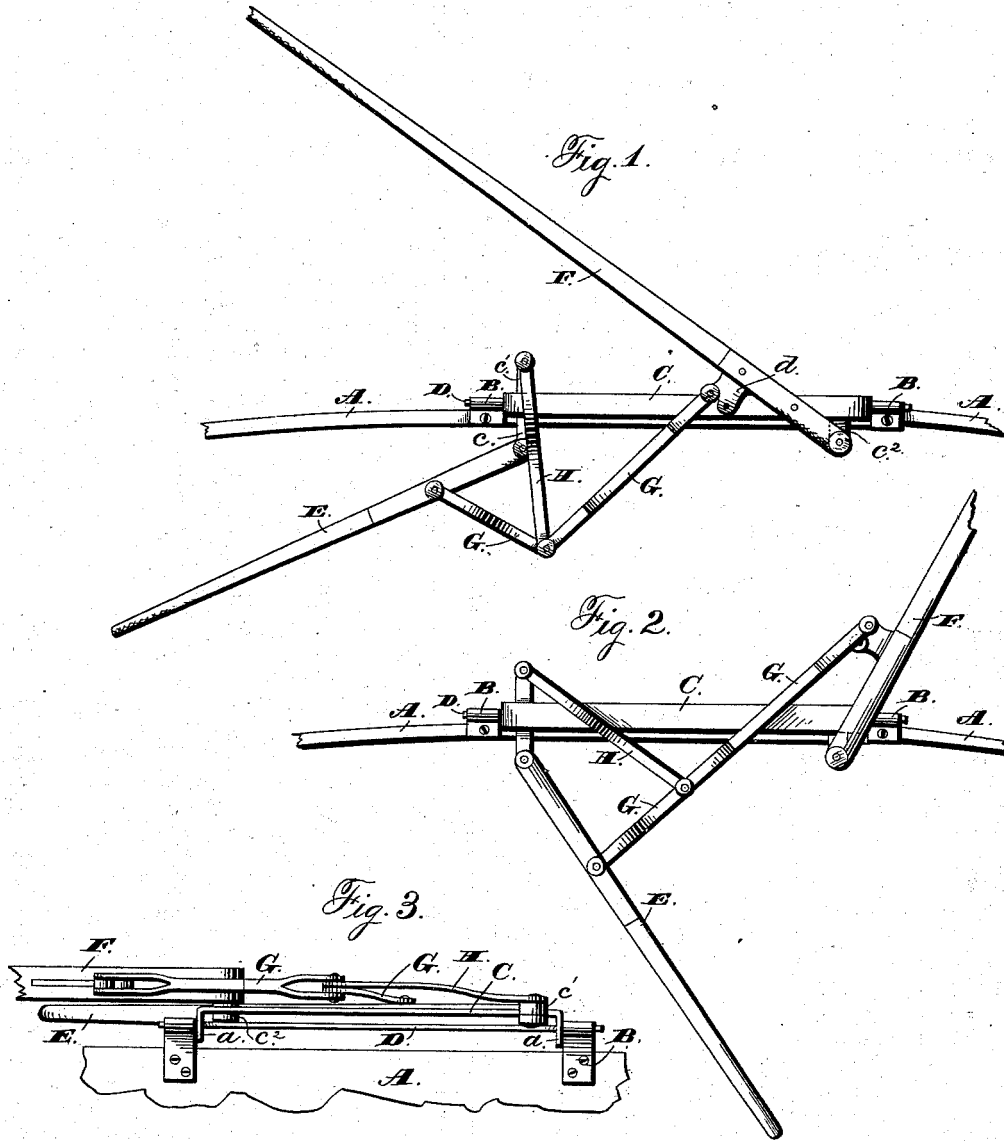
(No Model.)

F. D. SMITH & W. L. CASADAY.

ROWING APPARATUS.

No. 276,294.

Patented Apr. 24, 1883.



WITNESSES
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ROWING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 276,294, dated April 24, 1883.

Application filed January 31, 1883. (No model.)

To all whom it may concern:

Be it known that we, FRED D. SMITH and WILLIAM L. CASADAY, of New Carlisle, in the county of St. Joseph and State of Indiana, have invented certain new and useful Improvements in Rowing-Oars; and we 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 pertains to make and use the same.

Our invention relates to an improvement in rowing-oars, the object of the same being to provide an oar that will be easy of operation, and so arranged that the oarsman will sit facing the direction of movement of the boat; and with these ends in view our invention consists in certain details in construction and combinations of parts, as will be more fully described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view, showing the oar in the position it assumes at the commencement of a stroke. Fig. 2 is a similar view, showing the oar at the end of a stroke; and Fig. 3 is a view in side elevation.

A represents the gunwale of a boat provided with the upright bearings B, to which the rocking plate C is attached by means of the pivot pin or bolt D. This rocking plate C is provided with downwardly-bent ends *a*, through which the pivot pin or bolt D passes, and with the two laterally-projecting fingers *c* *c'* at its rear end, and the laterally-projecting finger *c*² at its front end, to which the handle, link, and oar are respectively connected. The handle E can be of any convenient length, and the inner end thereof is pivotally secured to the inwardly-projecting finger *c* of the rocking plate C. This handle E projects inwardly over the boat, while the oar F, which is connected to the finger *c*² near the front end of the rocking plate, extends outwardly over the gunwale. This oar can also be of any desired size and shape, and is provided near its inner end with the rearwardly-projecting lug *d*, having a series of holes therein, to which one end of the jointed connecting-rod G is pivotally secured. This rod passes diagonally backward over the gunwale of the boat, and is pivotally connected at its rear end to the handle E, near its pivoted

end. Thus it will be seen that by moving the handle E backward the oar F is also moved in the same direction and at the same rate of speed, and by moving the handle forward the oar is also moved forward. The oar and handle, with their connecting parts, are secured to the plate C, which latter is adapted to rock or tilt, so as to enable the oar to enter the water or be elevated above it without disarranging any of the parts, the position and motion of the several parts, however, being controlled by the oarsman, who has hold of the handles and is at liberty at any time to move forward or backward, as may be necessary.

The connecting-rod G is made in two parts, and is joined together by a pivot-pin, thereby forming a joint or elbow, to which the inner end of the link H is pivotally secured, the outer or opposite end of the said link being pivotally secured to the finger *c'*, formed near the rear end of the rocking plate C, on the outer side thereof. The joint in the rod G is preferably situated to one side of the center thereof, nearer the handle, and is for the purpose of accelerating the speed of the oar. If the jointed rod G were a single rod, the speed of the handle and oar and the amount of movement of the same would at all times be the same; but by jointing the rod and introducing the link H the speed of the oar is accelerated and the amount of movement increased in proportion to the speed and amount of movement of the handle.

When the handle is grasped and drawn backward the oar also follows in the same direction and at an increased rate of speed, which is due to the link H, which thrusts the joint or elbow of the connecting-rod inward, and consequently shortens the said rod. The handle and oar are provided with a series of perforations for the purpose of adjusting the connecting-rod so as to apply the power most advantageously, and the oar can be placed in front or behind the handle, as desired.

The rocking plate and pivot bolt or pin can be made of any suitable material, and in one or two pieces, as desired, and are so secured to the gunwale as to move evenly without straining or injuring the boat.

When the handles are released by the oars-

man the oars gradually move around to the side of the boat, and ride on the surface of the water without danger of becoming lost or displaced, and without interfering in anywise with the free forward movement of the boat.

This construction is particularly applicable for hunting water-fowl in marsh lands, as it enables the oarsman to extricate himself from the grass and weeds without difficulty.

If desired, the entire moving-gear can be removably attached to the gunwale, so as to be removed when necessary; or it can be rigidly secured thereto, as desired.

Our invention is simple in construction, is of few parts, is durable and effective in use, and can be manufactured at a small initial cost.

It is evident that slight changes in the construction and relative arrangement of the several parts might be resorted to without departing from the spirit of our invention, and hence we would have it understood that we do not limit ourselves to the exact construction shown and described, but consider ourselves at liberty to make such changes and alterations as fairly fall within the spirit and scope of our invention.

Having fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination, with a rocking plate and an oar and handle connected thereto, near the opposite ends thereof, of a jointed rod connecting the oar and handle, and a link, one end of which is pivotally secured to the rocking plate, while the opposite end is connected to the jointed connecting-rod.

2. The combination, with the rocking plate secured on the gunwale of the boat, and provided with laterally-projecting fingers for attachment, respectively, of the oar, handle, and link, of the oar and handle pivotally secured on the same side of the rocking plate, near the opposite ends thereof, a jointed rod connecting the two, and a link, one end of which is pivotally secured to the outwardly-projecting finger on the handle end of the rocking plate, while the opposite end thereof is pivotally secured to the jointed rod, all of the above parts adapted to operate as described.

In testimony whereof we have signed this specification in the presence of two subscribing witnesses.

FRED D. SMITH.
WILLIAM L. CASADAY.

Witnesses:

F. C. NIPPOLD,
E. K. LINDSEY.