No. 817,810. PATENTED APR. 17, 1906.

D. R. SHEEN.

BOW FACING ROWING MECHANISM.

APPLICATION FILED JULY 10, 1905.

FIG. 1.

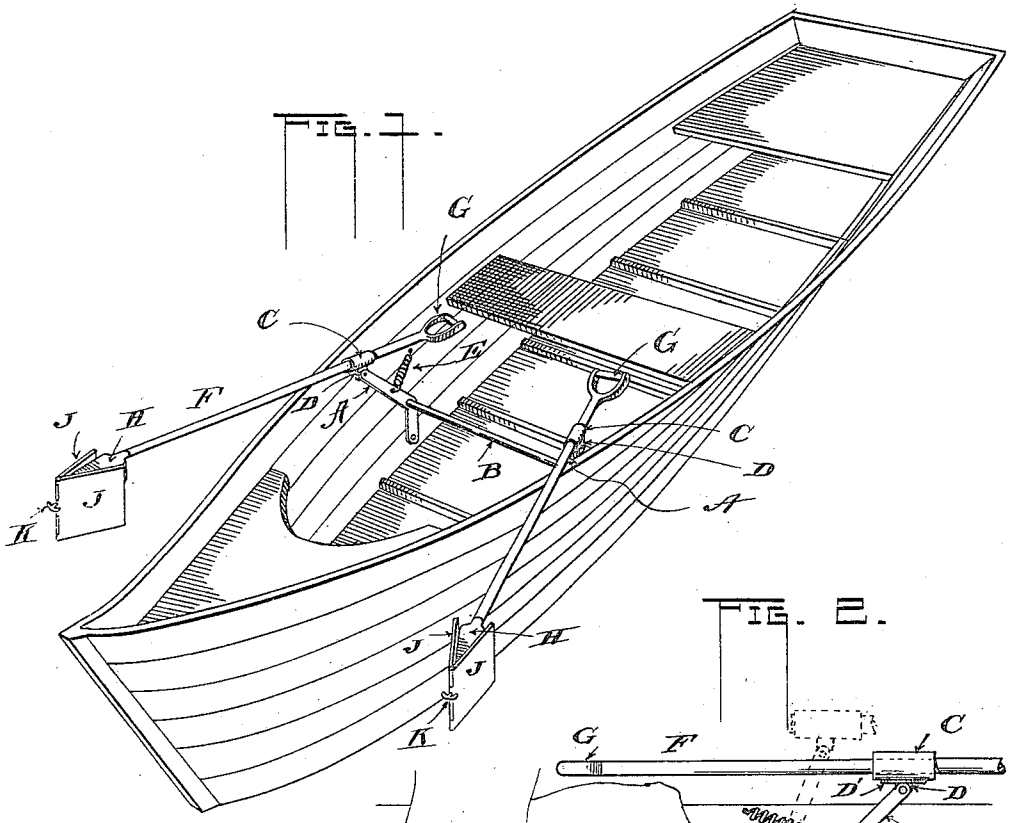


FIG. 2.

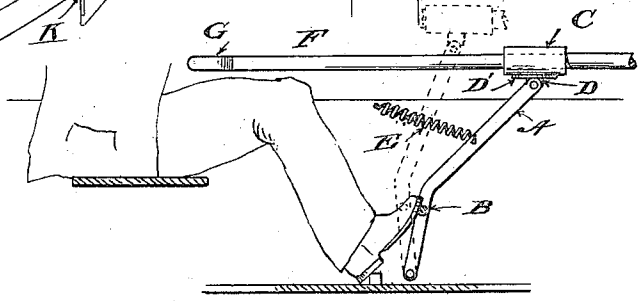


FIG. 5.

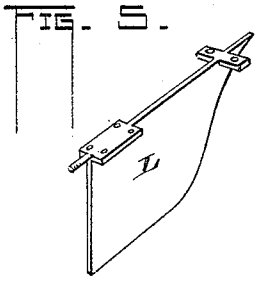


FIG. 4.

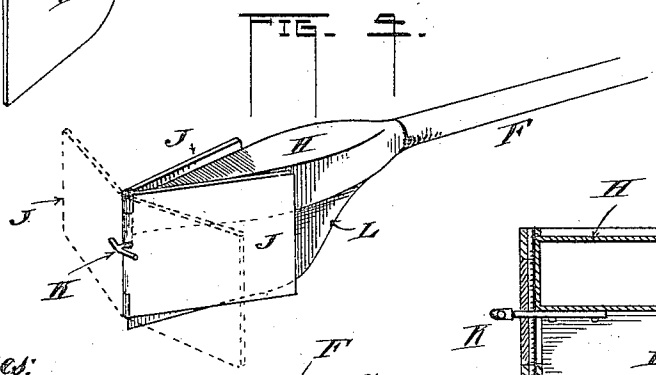
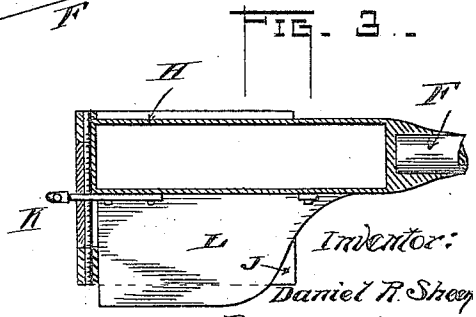
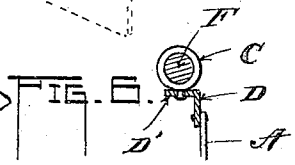


FIG. 3.



Witnesses:
E. J. Atwood
Mae Dann

FIG. 6.



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Atty.

UNITED STATES PATENT OFFICE.

DANIEL R. SHEEN, OF PEORIA, ILLINOIS.

BOW-FACING ROWING MECHANISM.

No. 817,810. Specification of Letters Patent. Patented April 17, 1906.

Application filed July 10, 1905. Serial No. 269,080.

To all whom it may concern:

Be it known that I, DANIEL R. SHEEN, a citizen of the United States, residing at Peoria, in the county of Peoria and State of Illinois, have invented certain new and useful Improvements in Bow-Facing Rowing Mechanism; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

This invention has reference to bow-facing rowing mechanism, having for its object improvement of devices of this class.

A further object is to provide a collapsible paddle that will float on the water when left to itself or that will not sink when used even by a person unused to rowing.

A further object is to provide a paddle with a water-cutting member or keel to insure its movement through the water in the rowing operation in a straight line.

Another and important object is to provide a supporting-frame for both paddles which may be operated by foot-pressure to assist the movement of the paddles.

In the drawings attached hereto, Figure 1 is a perspective view of a skiff, showing my improved rowing device carried therein. Fig. 2 is a side elevation of one of the paddles, showing a part of a carrying-frame therefor. Fig. 3 is a longitudinal section of one of the paddles, showing a float and keel therefor. Fig. 4 is a perspective view of the same. Fig. 5 is a perspective view of the keel detached from the paddle. Fig. 6 is a view of means for pivotally carrying a paddle or oar.

It is my purpose in bringing out this improved rowing mechanism to provide a movable pivotal frame by which with the assistance of the feet of the oarsman the level of the oars or paddles may be changed during the rowing operation. To bring this about, a frame is provided which consists of two arms A A, preferably formed in the manner illustrated in Fig. 2, being bent to form an obtuse angle, the lower end of the arms being pivoted on the side of the boat near the bottom, one being shown in Fig. 1 and the other in Fig. 2. At the bend of the arms a horizontal rod B is secured and extends from one arm to the other across the boat within reach of the oarsman's feet, as Fig. 2 shows. To the upper end of each arm is pivoted a sleeve C, which is merely a tubular member having a depending ear D, by which said sleeve is carried on the arm. A spring E is provided for each arm, one end being secured to the boat and the other to the arm, substantially as shown, said spring holding the arms normally in the upper or raised position shown in Fig. 2 in dotted lines.

My improved paddle, which is used with the mechanism described, comprises a shaft F, adapted to have a sliding fit within the sleeve C, one end carrying a handle G and the other or forward end a float H, which, as shown in Fig. 3, is hollow and designed to be made of light material—such, for instance, as aluminium or other suitable substance. This said float preferably tapers toward its forward end and at the point is hinged two plates J after the manner of the wings or plates described in my former application, filed March 3, 1905, Serial No. 248,354, and which will require no detailed description here. These said plates are designed to open and close according to the direction of movement imparted to the paddle-shaft F and some means, such as a two-armed member K, is employed, against which the plates bear when they are in their open position, as indicated in dotted lines in Fig. 4. When in their closed position, the plates rest against the sides of the float H, as shown in full lines, in that position ready to open as the water passes in behind them. Beneath and attached to the float member H is a vertical plate L, Fig. 5, designed to be in line with the shaft F.

As may be understood, it is the intention of this invention that the oarsman face the bow of the boat, pushing his paddles ahead of him and drawing them toward him by turns, as has been described in my former application referred to. In these movements the shafts F of the paddles slide back and forth through the sleeves C, the plates J opening by water-pressure when they are drawn toward the operator and closing by inertia when the paddle is thrust forward. In these backward-and-forward movements the frame A B is employed.

As has been stated hereinbefore, the springs E serve to keep the arms A normally raised, and in consequence the paddles also, and when in this position the paddles are pushed forward while in the air, but at the end of such forward movement the toes of the operator are employed to push the rod B forward with the result that the entire paddle

is lowered, while a slight upward tendency of the handles carries the plates J into the water. Now a pull opens the plates and the boat is propelled forward, and at the end of the stroke the foot-pressure is removed from the rod B, at which time the springs which have been under tension raise the entire paddle, and the operation described is repeated. In backing the boat it is only necessary to swing the paddles around to the side of the boat and use them in the same manner as the old-style oar, one of the plates of each paddle acting as the blade, and in order that this may be done the ear D has a horizontal member D′, which is pivoted to the sleeve C, as shown in Fig. 6, so that the two pivotal connections practically constitute a swivel for the paddle.

I provide the float member H, so that the paddles cannot be dipped too low into the water, and, further, that if dropped from the hand for the moment they will not pass beyond control. In addition to this the keel L prevents the paddle from swinging around to the side of the boat should the paddles be open, and said keel also acts as a cut-water by guiding the paddle through the water in a straight line, so as to be unaffected by wind or other force.

I may make various changes in my device without departing from the spirit of the invention.

I claim—

1. In bow-facing rowing mechanism, a pair of paddles adapted for back-and-forth movement in the direction of their lengths, the forward movement above the water, the backward beneath it, and a frame adapted for operation by the feet of the oarsman for lowering the paddles toward the water, and means for raising the frame and paddles all for the purposes set forth and described.

2. In bow-facing rowing mechanism, a pair of paddles adapted for movement in the direction of their lengths, and a spring-controlled device adapted for movement in one direction by the pressure of the feet of the oarsman for lowering the paddles toward the water, said device returning automatically to its raised or normal position for the purposes described.

3. In bow-facing rowing mechanism, a pair of paddles adapted for movement in the direction of their lengths, a frame pivoted within the boat on which the paddles are mounted as by a swivel, springs for sustaining the frame and paddles in a raised position as set forth, said frame and paddles adapted by foot-pressure of the operator to be depressed against the pull of the spring for lowering the paddles toward the water substantially in the manner set forth.

4. In bow-facing rowing mechanism, a frame pivoted in the bottom of the boat and extending up above said pivots substantially as described and shown, springs for sustaining the same in a substantially upright position, a foot-piece for lowering the frame by means of the feet of the operator against the pull of the said springs, members carried at the top of the frame as by swivels, and a pair of paddles slidably carried by said members for the purposes explained.

5. In bow-facing rowing mechanism, a frame pivoted at its lower end in the boat and adapted to swing on its pivots by pressure of the foot, springs for normally holding the frame in a substantially upright position, members swiveled to the top of the frame, and a paddle carried in each member, the same comprising a shaft adapted to slide within the said members, a float member carried at the forward end of the shaft, a keel member carried beneath the float, and a pair of blades adapted to open and close and having attachment with the said float.

6. In a bow-facing rowing mechanism, a pivotal frame carried within the boat and adapted to be lowered by the feet and raised automatically when the foot-pressure is removed therefrom and a pair of paddles carried on the frame, the same having a float at the forward end and blades thereon adapted to open and close in an automatic manner for the purposes described.

7. An oar carrying a float at its outer end, and a keel carried on the said outer end for the purposes described.

8. An oar comprising its shaft, a float carried at its outer end and a pair of collapsible blades also carried thereon.

9. An oar comprising its shaft, a float carried at its outer end, a pair of collapsible blades therefor and a keel stationed below the float all for the purposes set forth and described.

10. An oar having a float member at one end and a keel below the float.

11. An oar having a float at one end and a pair of blades pivoted to the float as shown.

12. An oar having a float at its free extremity and a pair of plates hinged at said point adapted to swing away from the float and to approach it and lie against it substantially as described.

13. An oar having at one end a float the extremity of the float being pointed, a pair of plates hinged at said point and adapted to close against the float and open substantially at right angles to the oar-shaft, and a vertical member beneath the float and parallel with the said oar-shaft to form a keel for the purposes explained.

In testimony whereof I affix my signature in presence of two witnesses.

DANIEL R. SHEEN.

Witnesses:
L. M. THURLOW,
E. J. ABERSOL.