

(No Model.)

C. B. ELLIOTT.
OUTRIGGER OARLOCK.

No. 269,924.

Patented Jan. 2, 1883.

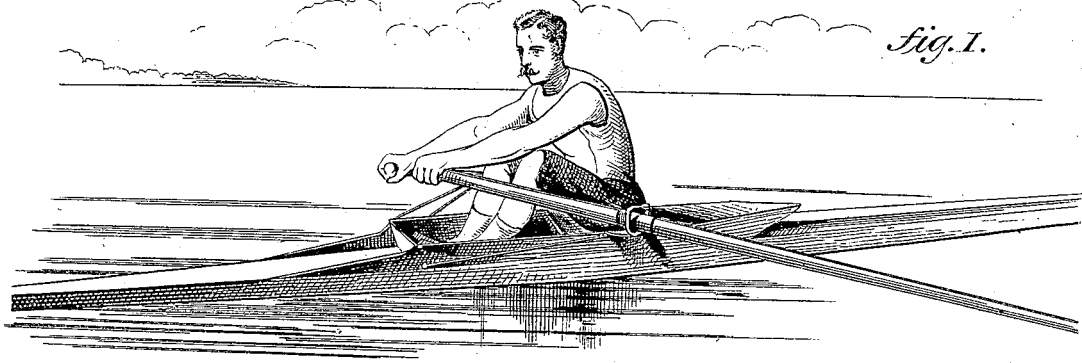


Fig. 1.

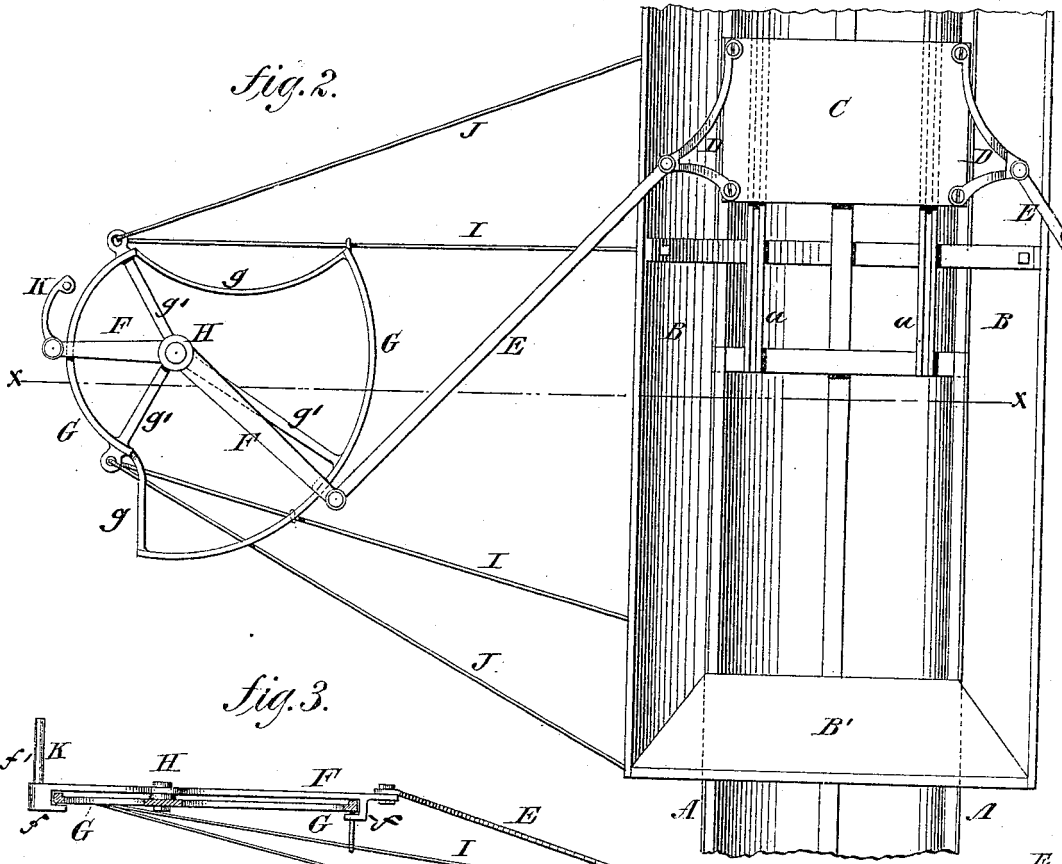


Fig. 2.

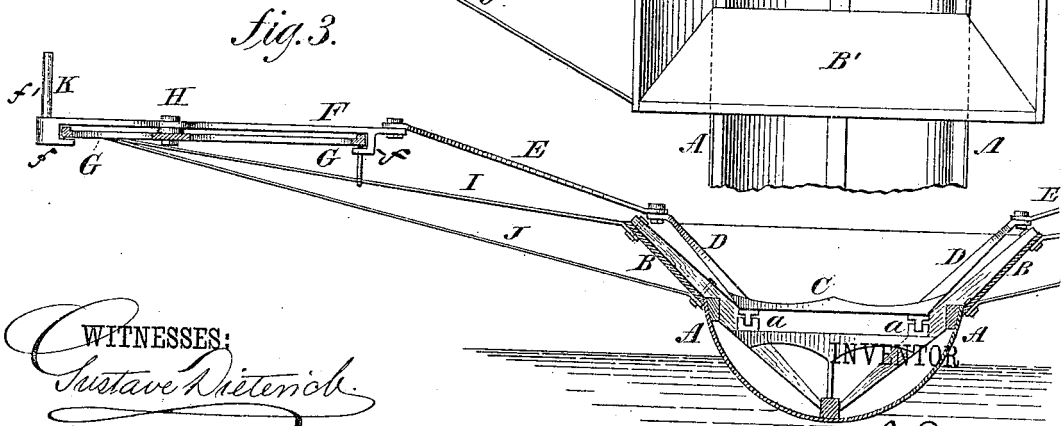


Fig. 3.

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OUTRIGGER OAR-LOCK.

SPECIFICATION forming part of Letters Patent No. 269,924, dated January 2, 1883.

Application filed May 16, 1882. (No model.)

To all whom it may concern:

Be it known that I, CHARLES B. ELLIOTT, of Green Point, Kings county, and State of New York, have invented certain new and useful Improvements in Oar-Motions, of which the following is a specification.

This invention relates to means designed to facilitate the propulsion of racing and pleasure boats by making use of the muscles of the legs in addition to those of the arms, so as to get a longer and more powerful stroke with less effort; and the invention consists in certain improvements hereinafter set forth and claimed.

In the accompanying drawings, Figure 1 represents a perspective view of my improved oar-motion, shown as applied to a racing-shell. Fig. 2 is a plan view of the same on a larger scale; and Fig. 3 is a vertical transverse section through the shell and my improved oar-motion on line $x x$, Fig. 2.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A represents a pleasure-boat or racing-shell of any approved construction, and B the combing arranged at each side at the middle part of the boat or shell; and I J are the outriggers, which extend from the combing B and are supported by the inclined side timbers of the boat. The outriggers I J at each side of the boat or shell support a horizontal skeleton platform, G, which consists of two radially-braced segments having a common center, but different radii, the inner one being of larger radius than the outer. The segments of each skeleton platform G are stiffened by outer braces, $g g$, and radial braces g' , and are secured to the outer ends and at intermediate points of the outriggers I J, as shown clearly in Fig. 2. The radial braces g' , as well as the outer braces, g , which connect the ends of the segments, serve for the purpose of imparting the required strength to the platform G and to give a rigid support for the fulcrum H of an elbow-lever, F, said fulcrum being arranged at the center of the segments. The elbow-lever F is provided at both ends with inwardly-projecting guide-lugs f , whereby it is steadily guided on the segments of the skeleton platform G. The outer end of the elbow-lever F is provided with a fixed vertical

spindle, f' , to which a fixed or oscillating oar-lock, K, of any approved construction, is applied. The inner end of the elbow-lever F is connected by a connecting-rod, E, with bracket-arms D, secured to a seat, C, that slides on ways $a a$ of the boat or shell A.

In place of the connecting-rod E, which is pivoted to the inner end of the elbow-lever F and the bracket-arms D of the seat C, a wire rope or any other equivalent connection may be used.

The sliding motion is imparted to the seat C by the legs of the oarsman, who rests his feet against a stretcher, B', in the customary manner in boats or shells having sliding seats, as shown in Fig. 2.

In making the stroke the seat is first moved back by the action of the legs of the oarsman simultaneously with the lowering of the oars, whereby the catching of the oars in the water is produced. By the backward motion of the seat an oscillating motion is imparted at the same time by the connecting-rods and elbow-levers to the oar-locks supported on the skeleton platforms, so that the oar-locks are moved through arcs of a circle before the action of the arms on the oars can take place. The result is, consequently, that the greater part of the motion of the oars is imparted thereto by the muscles of the legs and the remaining part by the motion of the arms, which complete the stroke and then return the oars for the next stroke.

The sweep of the oars is considerably enlarged by the motion of the oar-locks as compared to the present sweep, which is about nine feet, while actual tests have demonstrated that by the movable oar locks the sweep of the oars is enlarged to eleven and one-half to twelve feet. As this is gained without any extra exertion of the muscles of the arms, but mainly effected by the muscles of the legs, which are so much stronger, it is evident that the power of the oars is considerably increased, and consequently speed gained.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with a boat or shell, of a sliding seat, outriggers, supporting-platforms having arc-shaped inner and outer sides, bent levers pivoted to said platforms and provided

at their outer ends with oar-locks and at their inner and outer ends with lugs which traverse the arcs of the platforms, and rods or chains connecting the levers and seat, substantially
5 as described.

2. The combination of a boat or shell, A, having a sliding seat, C, combings B B, and outriggers I J, with skeleton platforms G G, supported by the outriggers, elbow-levers F, fulcrumed to and guided on the platforms, oar-locks K, supported on the outer ends of the elbow-levers, and pivot-rods E, that connect the inner ends of the elbow-levers F with the seat C, substantially as specified.
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3. In an oar-motion, the combination, with 15 the outriggers I J, of a skeleton platform, G, supported thereon, said platform being formed of segments of different radii stiffened by outer and radial braces, *g g'*, substantially as specified.
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In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

CHAS. B. ELLIOTT.

Witnesses:

PAUL GOEPEL,
I. B. ELLIOTT.