(No Model.)

R. D. WILLIAMS.

OAR LOCK.

No. 260,341. Patented June 27, 1882.

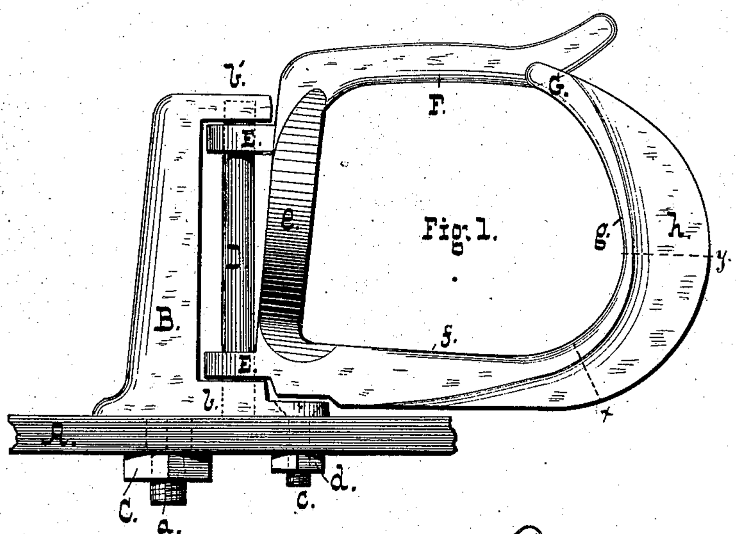

Fig. 1.

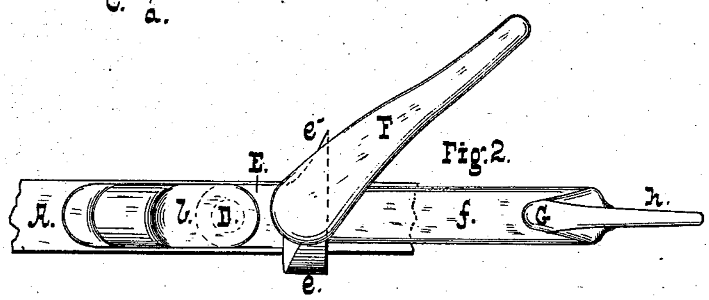

Fig. 2.

Fig. 3.

Fig. 4.

WITNESSES.

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RICHARD D. WILLIAMS, OF BALTIMORE, MARYLAND.

OAR-LOCK.

SPECIFICATION forming part of Letters Patent No. 260,341, dated June 27, 1882.

Application filed April 18, 1882. (No model.)

To all whom it may concern:

Be it known that I, RICHARD DOUGLAS WILLIAMS, of Baltimore city, State of Maryland, have invented certain new and useful Improvements in Rowlocks; and I hereby declare the same to be fully, clearly, and exactly described as follows, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of the rowlock. Fig. 2 is a top plan of the same, and Figs. 3 and 4 are sectional views on the lines *x* and *y* of Fig. 1.

My invention relates to rowlocks for boats, and while the device embodying the same is primarily designed for use in connection with an outrigger it is equally adapted for use upon the rail.

My invention belongs to the class of so-called "swivel-rowlocks," in which the rowlock proper is pivoted upon the rail or outrigger so as to turn freely about a vertical axis, the object being to avoid the lost motion which, in the case of the stationary rowlock, is unavoidable; and my said invention consists, first, in a rowlock having its base and rowing-face substantially straight and at right angles to each other, the rowing-face being inclined to the rear; second, in a rowlock having its rear face extended forwardly above the oar and an arm or bar extending diagonally to the rear from the top of the rowing-face; and, third, in a rowlock having its rear face curved in the arc of a circle over the oar, and having an arm projecting outwardly from the rowing-face over the oar, as hereinafter set forth.

In the drawings, A is the outrigger, upon which is firmly secured the standard B by means of nuts C *d*, which are screwed respectively upon a shank, *a*, and upon a screw, *c*, that passes through the end of the base-piece *b*. The cap-piece *b'* of the standard has a recess in its under side, as shown in dotted lines, into which the end of the rod D fits. The other end of the rod rests upon the outrigger, passing through a hole in the base *b*.

The rowlock proper is provided with a pair of perforated lugs, E, through which the rod D passes. The forward part of the rowlock, or that nearest the standard, is somewhat inclined, and is broadened laterally to give an extended surface for the oar during the stroke, the side *e* being of considerable width, so as not to cut the button of the oar, and the side *e'* being beveled away to an edge for the sake of lightness. The base *f* of the rowlock is about at right angles to the rowing-face—that is to say, it is not truly horizontal, the end nearest the standard being higher than the opposite end. The rear face of the lock is curved substantially in the arc of a circle and terminates in rounded end G, which is vertically over a point distant from the rear face of the lock by about one-third or three-eighths the width of the latter. The parts *f g* G all lie in the same vertical plane, and the parts *f* and *g* are of about the same width.

F is the top bar, which extends from the top of the rowing-face of the lock outward at an angle of about forty-five degrees, leaving a space between itself and the point G wide enough to insert the shaft of the oar at its narrow part, near the blade. The bar F is inclined upward as well as outward, for a purpose that will be hereinafter referred to.

A strengthening-web, *h*, extends in the plane of the lock from the rear face, *g*, and tapers away toward the base *f*, gradually widening laterally, as shown in Figs. 3 and 4, the object being to give ample stiffness in the plane of the lock to prevent the same from spreading or breaking when holding water, as in turning, while not unduly raising the base of the lock above the outrigger.

The object of inclining the rowing-face of the lock to the rear is to give a lifting-pull to the boat—a most important point, conducing, as it does, to the speed of the boat and the comfort and convenience of the sculler, and keeping the craft on an even keel. The base of the lock is inclined downward to the rear, in order to cause the blade of the oar, during the recover, to incline to the surface of the water, whereby the danger of "catching a crab" is greatly lessened. The double incline of base and rowing-face of the lock, moreover, admits of the sculler relaxing his grip on the handle somewhat during both stroke and recover, which is a great relief during a long pull, and the flat back of the oar, bearing against the front and base of the lock, tends to hold it to its proper position at all times. The forward curvature of the rear side of the

lock and the fact that that side and the base lie in the same plane subserve important ends in preventing the lift or jumping of the oar and facilitating its turn to feather in the lock.

The boat, when lying alongside the float, with her inner outrigger thereon, has a natural list outward, or, if not, the boat is slightly canted, causing the outer lock to swing outward, bringing the arm or upper bar of the lock to a position substantially at right angles to the boat. The oar is then brought down vertically, with its blade horizontal, the narrow part of the shaft, near the blade, being made to pass between the bar F and point G and into the lock. As the oar is next shoved outward the lock swings around until, when the button encounters the lock, the latter is parallel to the boat. The inner oar is next introduced in the same way, and the oarsman, holding both handles in one hand, takes his seat in the boat, steadying himself with his other hand upon the inner outrigger.

The peculiar upward curvature of the bar F facilitates the introduction and removal of the oar, as a vertical lift of the latter, with the narrow part on the lock, tends to swing the lock so as to bring the opening over the oar and permit its release.

The inner diameter of the lock should be very slightly greater than the thickness of the oar, so that, while lost motion is reduced to a minimum, there is no danger of the button passing behind the part *e*.

The mode of attaching the rowlock to the standard leaves nothing to be desired in point of simplicity and cheapness, it being only necessary to perforate the base for the lower end of the bar D and recess the cap *b'* for its upper end. The bars themselves are made from a thick iron or steel wire by simply cutting it into lengths.

The forward curvature of the lock overlapping the oar operating in conjunction with the arm F holds the oar down in the lock and prevents it from jumping should the water be rough.

The rowlock proper is cast in one piece, and is of such shape that its pattern readily draws from the sand.

What I claim is—

1. A swiveled rowlock having a substantially-straight rowing-face inclined to the rear and a base substantially at right angles therewith, whereby a lifting-pull is secured during the stroke, and the blade of the oar is inclined to the surface of the water pending the recover, as set forth.

2. A swiveled rowlock having a forward extension of its rear face above the oar, and an arm or bar rigidly secured to or integral with its rowing-face, and extending diagonally outward from the plane of the lock and over the oar, as set forth.

3. A swiveled rowlock having its rear portion curved substantially in the arc of a circle and overlapping the oar at the top, and provided with a rigid arm projecting outward over the oar, and secured to or integral with its forward portion or rowing-face, as set forth.

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Witnesses:
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