(Model.)

L. A. COOK.

ROWING GEAR.

No. 597,603. Patented Jan. 18, 1898.

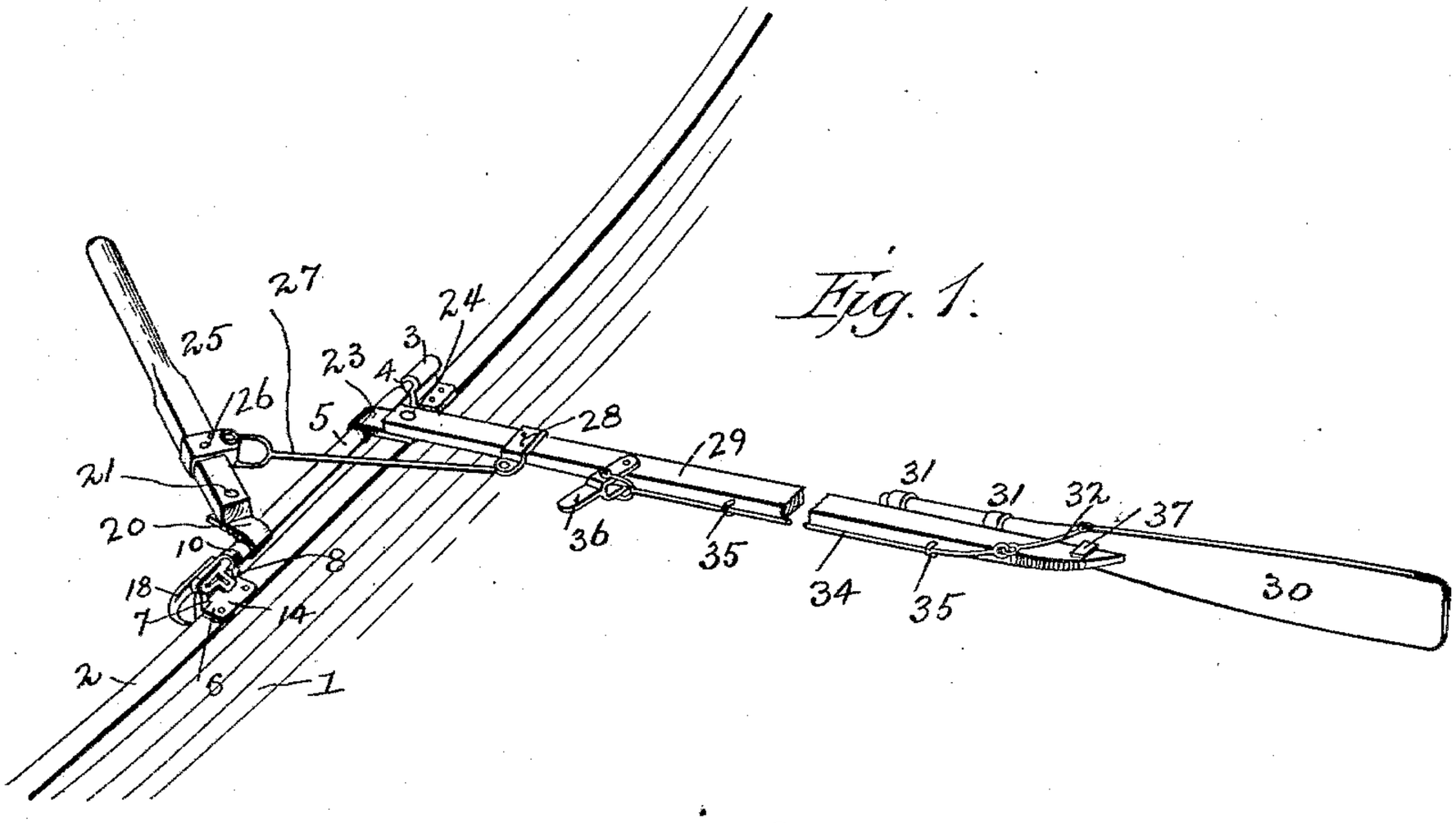

Fig. 1.

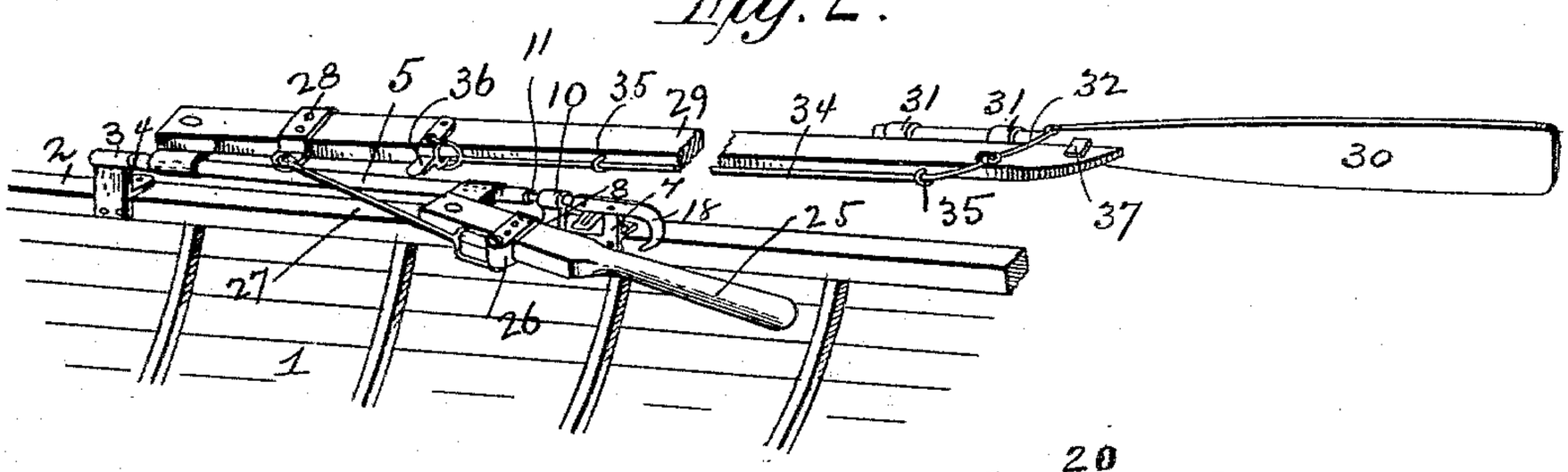

Fig. 2.

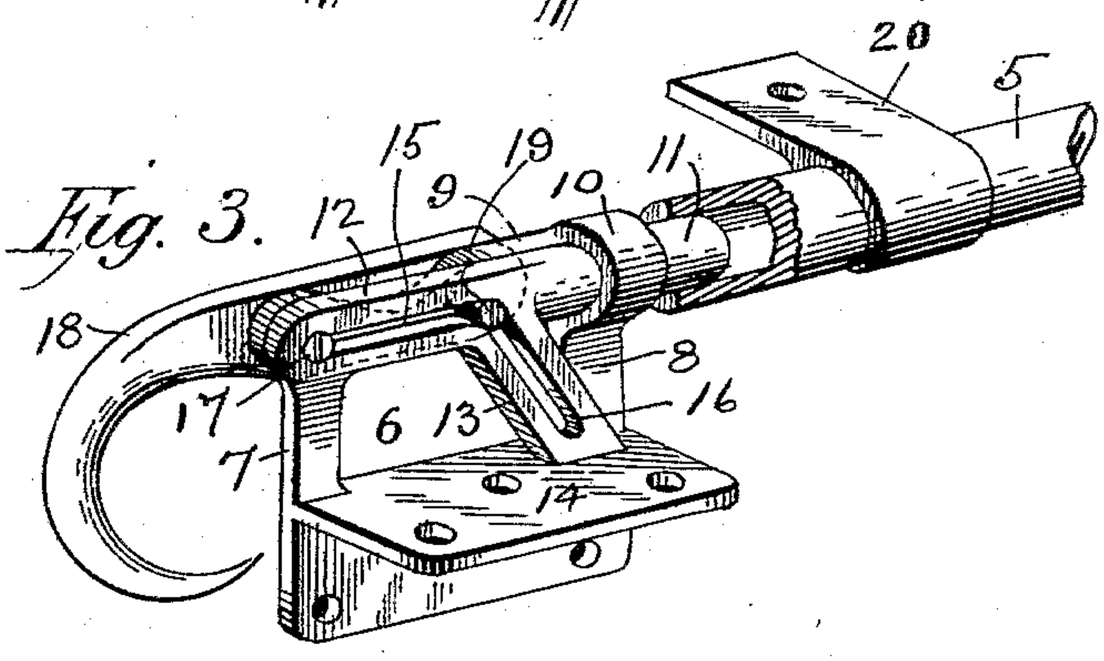

Fig. 3.

Witnesses
Franck W. Durand.
J. L. Coombs

Inventor:
Leeds A. Cook.
by Louis Bagger & Co.,
Attorneys.

UNITED STATES PATENT OFFICE.

LEEDS A. COOK, OF HANOVER, MICHIGAN.

ROWING-GEAR.

SPECIFICATION forming part of Letters Patent No. 597,603, dated January 18, 1898.

Application filed November 16, 1896. Serial No. 612,400. (Model.)

To all whom it may concern:

Be it known that I, LEEDS A. COOK, a citizen of the United States, and a resident of Hanover, in the county of Jackson and State of Michigan, have invented a new and valuable improvement on my former invention in Rowing-Gear, said former invention being protected by and described in certain Letters Patent issued to me and bearing date January 17, 1882, and numbered 252,432; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the figures of reference marked thereon.

My invention relates to what is known as "bow-facing" rowing-gear for boats, in which the oarsman faces the bow during the operation of rowing or propelling the boat.

The object of the invention is to provide an improved construction whereby I secure important advantages with respect to efficiency in use.

In the accompanying drawings, Figure 1 is a perspective view showing a portion of a row-boat with my improvements applied thereto. Fig. 2 is a perspective view of a portion of the boat, showing the oar folded up close to the gunwale. Fig. 3 is a detail perspective view showing the sliding bolt and means for operating the same.

In the said drawings the reference-numeral 1 designates the side, and 2 the gunwale, of a row-boat of any ordinary or suitable construction. Secured to the gunwale is a bracket 3, provided with a stationary pin 4, which projects into one end of a tubular rock-shaft 5. At the other end of said shaft is a bracket 6, which is also secured to the gunwale of the boat. This bracket is formed with two upwardly-extending arms 7 and 8, the forward one of which is formed with a socket 10. These arms are connected by an arm 9. Located and movable in this socket is a pin or bolt 11, which projects into the rear end of the tubular rock-shaft. This pin is formed with a horizontal extension 12 and an integral inclined arm 13, the lower end of which rests on the plate 14 of the bracket. Formed in said extension is a horizontal slot 15, which intersects with an inclined slot 16 in the arm 13. Pivoted to the arm 8 by pivot 17 is a lever 18, provided with a headed pin 19, which engages with the slots 15 and 16. The rear end of this lever is curved to form a finger-hold.

Secured to or formed with the rock-shaft near the rear end is an inwardly-extending lug 20, provided with a pivot-pin 21, while near the front end of the rock-shaft is an outwardly-extending lug 23, having a pivot-pin 24.

The numeral 25 designates a hand-lever connected with the pivot 21 and provided intermediate its ends with a clasp 26, to which is pivotally connected a rod 27. The other end of this rod is pivoted to a clasp 28, secured to the loom or shaft 29 of the oar. The inner end of the loom is connected with a pivot 24 of lug 23.

The numeral 30 designates the blade of the oar, which is made separate from the loom and is pivotally connected therewith by sockets 31. Pivoted to the upper edge of the blade is a link 32, which in turn is pivotally connected with a rod or wire 34, passing through staples 35 on the loom and the inner end connected with a small lever 36, pivoted to the loom. The object of this construction is to allow the oar to feather at the end of the stroke.

The numeral 37 designates a rubber stop secured to the loom for limiting the movement of the blade in feathering.

The operation is as follows: The oarsman sits in the boat facing the bow and works the lever 25, which through the medium of the rod 27 will operate the oar, the rock-shaft oscillating to allow the blade to dip into the water and to be withdrawn. This movement will propel the boat in the direction the oarsman is facing. As the blade dips into the water at the beginning of the stroke its lower edge catching the water first will cause the blade to occupy a vertical position, the rubber stop 37 limiting its movement. At the end of the stroke as the blade is raised the back préssure will cause the blade to be turned at an angle of approximately forty-five degrees, the link 32 limiting its movement in this direction. When it is desired to use the blade without feathering, the hand-lever is operated to pull the rod 34 inward, which will in turn pull the link 32 inward and hold the blade in a vertical position.

By connecting the hand-lever 25 with the inside of the rock-shaft and the loom with the outside a greater sweep of the oar can be made by the same movement of the lever than if the pivots of the lever and oar-loom were alined with each other.

To disengage the rock-shaft from the boat, the lever 18 is operated or turned so that the headed pin 19 will engage with the inclined slot 16, thereby moving the pin or bolt backward and withdrawing it from the end of the rock-shaft.

Having thus fully described my invention, what I claim is—

1. In a rowing-gear, the combination with the brackets, the rock-shaft and lugs at opposite ends and sides thereof, of the oar-loom pivoted to one of said lugs, the hand-lever pivoted to the other lug and the rod pivotally connected with said loom and lever, substantially as described.

2. In a rowing-gear, the combination with the bracket having a stationary pin, the bracket having upwardly-extending arms, one of which is formed with a socket, the movable pin passing through the socket, the extension and inclined arm and the intersecting slots at an angle to each other, the lever pivoted to the other arm, the headed pin secured thereto and engaging with said slots, and the tubular rock-shaft with which said pins engage, of the hand-lever and oar-loom pivotally connected with said rock-shaft, and the rod pivotally connecting the said lever and loom, substantially as described.

3. In a rowing-gear, the combination with the rock-shaft, the hand-lever and oar-loom pivoted thereto and the connecting-rod, of the oar-blade pivotally connected with the loom, the link pivotally connected therewith, the movable rod pivotally connected with said link, the staples and the lever pivoted to the loom and connected with said rod, substantially as described.

LEEDS A. COOK.

Witnesses:
CHAS. E. SNOW,
MINNIE B. SNOW.