T. FEARON.

Row-Locks.

No. 138,388. Patented April 29, 1873.

Fig. 2.

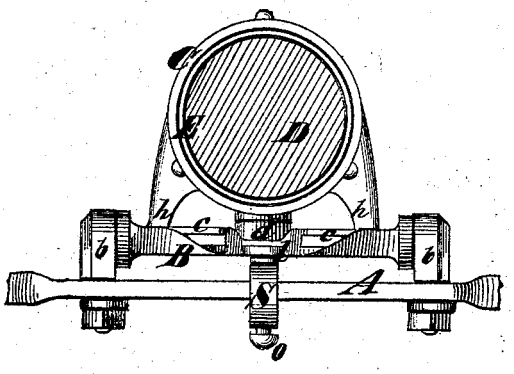


Fig. 3.

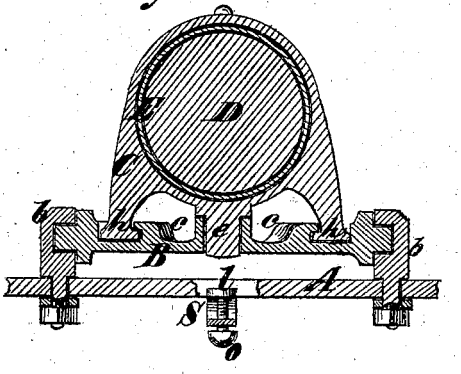


Fig. 4.

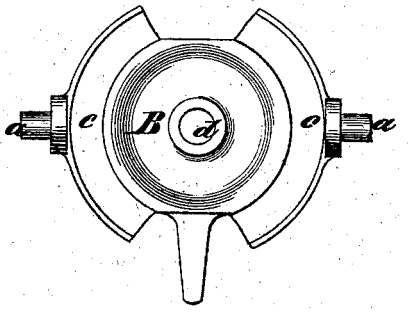


Fig. 5.

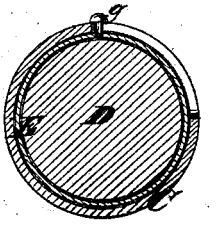
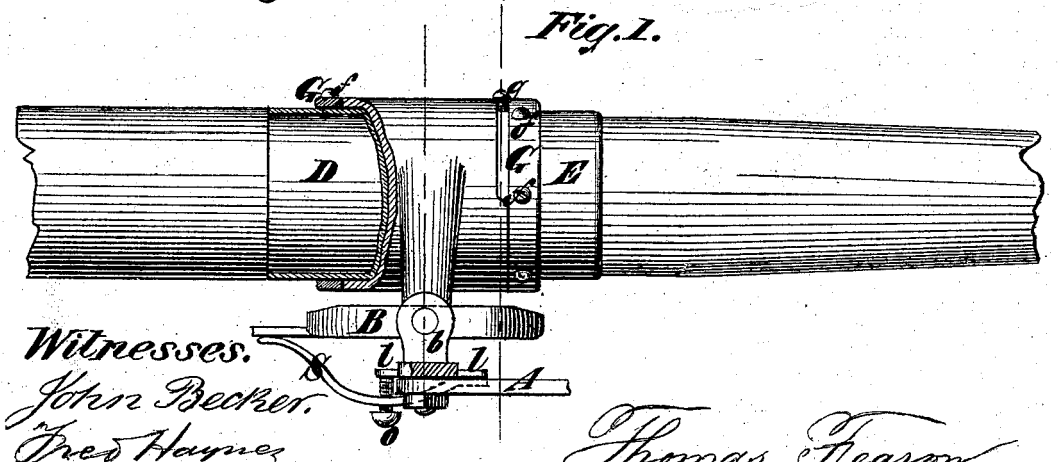


Fig. 1.



Witnesses.

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Attorneys

UNITED STATES PATENT OFFICE.

THOMAS FEARON, OF YONKERS, NEW YORK.

IMPROVEMENT IN ROW-LOCKS.

Specification forming part of Letters Patent No. **138,388**, dated April 29, 1873; application filed March 10, 1873.

To all whom it may concern:

Be it known that I, THOMAS FEARON, of Yonkers, in the county of Westchester and State of New York, have invented an Improved Row-Lock, of which the following is a specification:

In rowing, every facility that can be afforded to the oarsman in handling his oar and plying in the water is of the utmost value. The object of this invention is to provide for the facile manipulation of the oar in the evolutions of feathering, carrying, and in shipping. With these objects in view, the invention consists in a row-lock of peculiar construction, adapted to attain the desired ends.

In the accompanying drawing, Figure 1 is a partly-sectional side view of my improved row-lock, showing also a portion of the oar. Fig. 2 is a view of the row-lock taken at right angles to the former. Fig. 3 is a section of the same taken transversely through the oar. Fig. 4 is a detail view of a trunnion-plate, constituting a part of the row-lock; and Fig. 5 is a transverse section of its socket.

Similar letters of reference indicate corresponding parts in the several figures.

A represents one of the outriggers used on racing boats or "shells," as they are technically termed, to hold the row-locks. B is a trunnion-plate, which is of circular form, notched on opposite sides, so that it is divided into two segments, and, as its name indicates, furnished with trunnions *a a*. This plate is supported in bearings *b b* provided on the outrigger, and during the operation of rowing oscillates toward and from the gunwale of the boat. In its upper face there is a groove, *c*, bordered on the inner side by an overhanging flange or ledge, and in its middle is a hole or bearing, *d*, for the reception of a pivot on the oar-socket C. This socket I make of annular form to embrace the oar D. On its under side there is a pin or pivot, *e*, and in line with this, one on each side of it, are two flanged feet, *h h*, which straddle the plate B and fit one in each segment of the groove *c*. The overhanging ledge before mentioned holds the feet within the groove, and thereby secures the oar in place. When the oar is plied back and forth there is imparted to this socket an oscillating motion relatively to the trunnion-plate. Where the oar fits its socket it is clothed with a metal sleeve, E, which prevents it from being bruised by the socket, and moreover, strengthens it at the point where it is most liable to break. The socket is retained in position on the oar by means of rings G G, fitting one on each side of it. These rings are held in place by screws *f f* passing through the sleeve E and screwing into the oar. The one at the inner end of the socket is more firmly secured than the other, because there is considerable strain outward, especially when rowing cross-handed. In the outer edge of the socket is a recess, which extends one-quarter of the way round. A pin or screw, *g*, inserted into the oar projects into this recess and prevents the oar from turning more than a quarter round, and thereby obviates all danger of "crabbing." I provide, on the outer portion of the outrigger, a lug, *l*, and on this, under the outer portion of the trunnion-plate B, I arrange a spring, S, to balance the weight of the oar in order to render its manipulation easy. Moreover, I provide, in the aforesaid lug, a set-screw, *o*, so that more or less force may be imparted to the spring according to the weight of the oar used.

Oars have often been counterbalanced by applying weight to the handles, but this mode is very objectionable for racing boats, as the weight of the boat is increased.

When the oar is plied through the water the socket C turns in the trunnion-plate, and when it is withdrawn from the water the trunnion-plate oscillates in its bearings to accommodate the movement of the oar. Of course, as the oar is carried back the socket turns in the trunnion-plate again. The feathering of the oar occasions its turning in the socket C, and, by reason of the recess in the latter and the pin *g*, the oar can only turn sufficiently to shift its blade at right angles, and therefore its blade is always parallel with the surface of the water, or edge downward, and crabbing is impossible.

To ship the oar, all that is necessary is to let the oar drop alongside the boat for the pur-

pose of bringing the flanged feet into the notches in the trunnion-plate, and then the oar may be lifted out of the row-lock in the usual manner. The spring S, bearing against the outer portion of the trunnion-plate, in a great measure supports the weight of the oar, so that but little power is required to handle it.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination of the socket C, provided with a pivot *e* and flanged feet *h h*, with the trunnion-plate, constructed as described, substantially as and for the purpose herein set forth.

2. The combination of the spring S, arranged on the outrigger A, and the trunnion-plate B, substantially as and for the purpose set forth.

THOMAS FEARON.

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