(No Model.)

A. H. TOMPKINS.

OAR LOCK.

No. 362,405. Patented May 3, 1887.

Fig. 1.

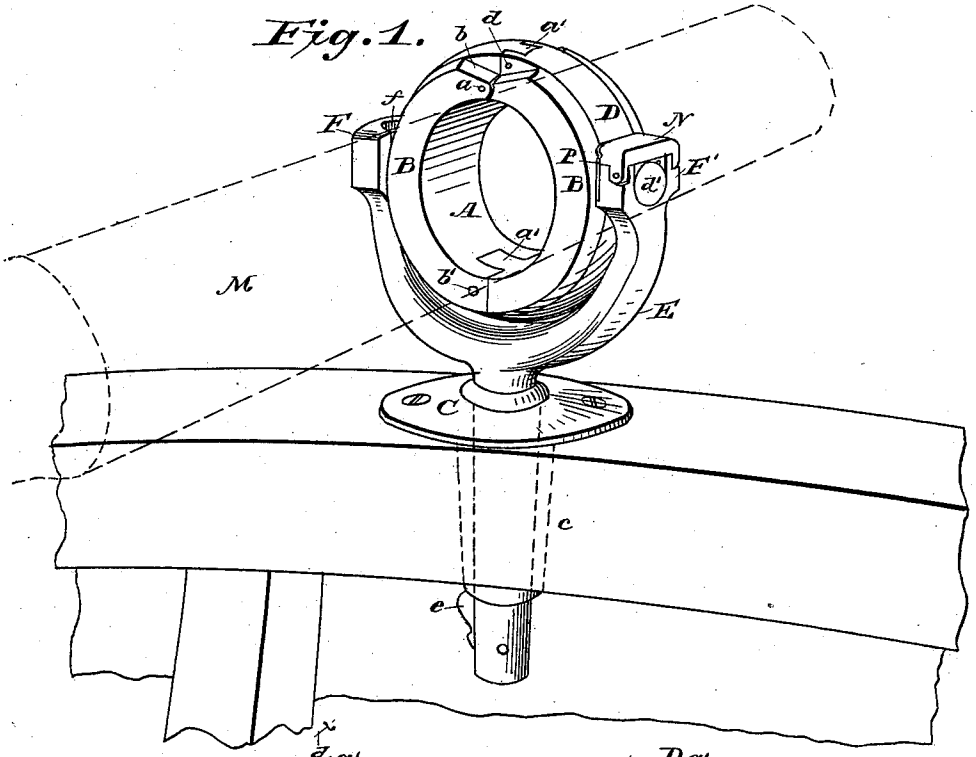


Fig. 2.

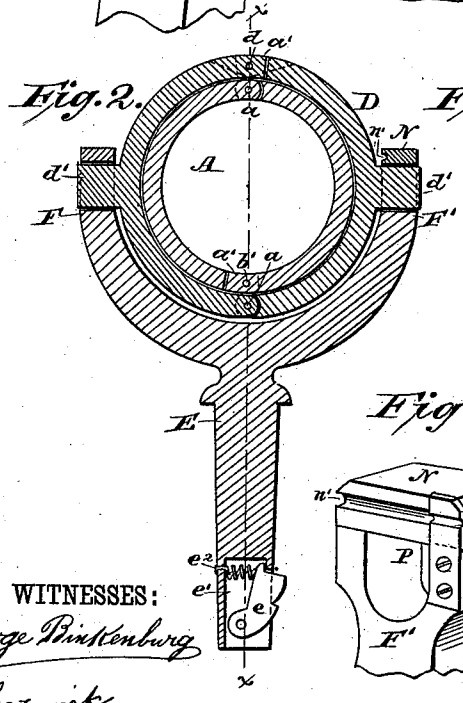


Fig. 3.

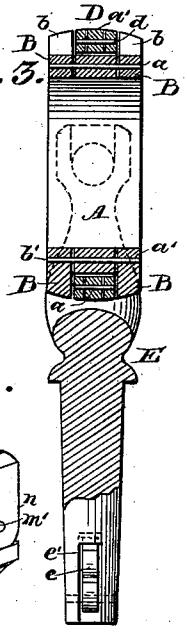


Fig. 4.

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OAR-LOCK.

SPECIFICATION forming part of Letters Patent No. 362,405, dated May 3, 1887.

Application filed February 28, 1887. Serial No. 229,112. (No model.)

To all whom it may concern:

Be it known that I, ALFRED H. TOMPKINS, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Oar-Lock, of which the following is a full, clear, and exact description.

My invention relates to an improvement in oar-locks, and has for its object to provide a device whereby all necessary play will be allowed the oar, with a minimum of friction, and which will not unship in the roughest weather.

A further object of the invention is to provide a device which will not only permit the oar to be operated as with the common oar-lock, but which will assist in the use of the oars—that is, not only may the oars be dipped into and lifted from the water in vertical lines, and swept in horizontal lines, but wherein the oar-lock may be turned with the oar, and be thus adapted to the feathering movement in rowing.

Another object of the invention is to so construct an oar-lock that simplicity and strength will be combined with lightness, and wherein an oar may be shipped and unshipped with dispatch and ease; also wherein the oar-lock will be peculiarly adapted for sculling and steering with an oar.

The invention consists in the construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of my oar-lock, the oar being partially shown in dotted lines. Fig. 2 is a longitudinal vertical section. Fig. 3 is a transverse section thereof through line *x x* of Fig. 2, and Fig. 4 is a detail perspective view of one of the journals of the U-frame.

Referring to the accompanying drawings, A represents a sectional ring having a hinge, *a*, and interlocking ends *a'*, opposite the said hinge. The edges of the ring A are each provided with an outwardly-projecting peripheral flange, B, which flange is more or less cut away at each side of the hinge to form the recess *b*, as illustrated in Fig. 1.

The aforesaid ring A is clamped around an oar, M, a proper distance outboard from the handle, and secured by passing a pin, *b'*, through the interlocking ends *a'*. A second sectional ring, D, is now provided, narrower than the first, having also a hinge, *a*, and opposite interlocking ends *a'*, which narrow ring D is clamped over the first ring, the inner ring, A, being adapted to turn within the outer ring, D, as will be readily seen from the drawings.

The ring D is made sufficiently wide to revolve readily between the flanges B, and of a thickness about equal to the height of the said flanges above the inner ring, A, of which they constitute a part. By bringing the interlocking ends of the outer ring in alignment with the recess *b* in the inner ring a pin, *d*, may be passed through the said ends to secure them in position, as shown in Fig. 1. Each section of the outer ring, D, is provided upon its periphery, centrally between the ends, with an integral trunnion, *d'*.

The two rings, constructed and secured as above described, are designed to constitute a fixture upon the oar, and are made as light as possible consistent with the wear and strain necessarily brought to bear upon them in rowing.

C represents one form of boat-bracket, secured by screws or otherwise to the gunwale, having tubular arm *c*. In this arm *c* the shank of the U-frame E is shown to operate, provided at its lower end with a spring-actuated pin, *e*, pivoted in a slot, *e'*. When the shank is inserted in the boat-bracket, the pin *e* rides down the cylindrical arm *c*, and when clear thereof returns to its normal position, projecting outward from said slot. The bracket C is not necessarily a portion of the oar-lock, as the shank of the U-frame may be attached to various styles of boats, in a multiplicity of ways, without departing from the spirit of the invention—as, for instance, in crafts carrying outriggers the bracket is entirely dispensed with, the frame being preferably made integral with the said outriggers.

In the upper extremities of the U-frame E journals F F' are provided for the trunnions of the outer ring, D, one journal, F, being positively inclosed at the top and provided with an inner vertical recess, *f*, to facilitate the insertion of the trunnion, the other jour-

nal, F', being open and provided with a hinged cap, N. The hinged cap is made more or less rectangular, having integral with each end, near the outer longitudinal edge, lugs *n*, and a central groove, *n'*, extending the length or part thereof of the inner longitudinal edge, as shown in detail, Fig. 4.

In hinging the cap upon the journal F', recesses *m* are cut in the outer ends of said journal, in which the lugs *n* have play, the said lugs being held in connection with the journal by pivotal pins *m'*, or other equivalent means.

In the normal condition the cap N is adapted to be horizontally and longitudinally across the top of the journal covering the same, the inner edge of the cap being in alignment with the inner face of the journal. As a means of retaining the cap in a closed horizontal position, a flat spring, P, is sunk in the inner face of the journal at one or both ends, adapted to extend thereon about flush with the top of cap N, the said spring being provided, near its upper end in alignment with the groove *n'*, with a rear transverse projection, P', which projection, entering the groove *n'*, retains the cap in a locked position. When desirable to receive the oar, the cap may be either thrown back against the pressure of the spring, or the spring may be bent inward, thereby releasing the cap. In this manner all possibility of the trunnions leaving the frame without being intentionally removed is overcome.

It will be observed that the construction of the U-frame admits of a ready and safe adjustment of the oar therein, and a speedy detachment therefrom.

Among the many advantages derived from the use of my oar-lock over the ordinary oar-lock, is, first, it relieves the strain of the oar upon the hand at the entrance of the oar and to a great extent upon the stroke; second, it prevents the oar from slipping inboard and outboard, which is well known to be a very common and annoying matter with oar-locks, and a serious impediment in match-rowing. It prevents loss of work, and the jar and irregularity of movement occasioned by the change of fulcrum for the oar from the front to the back horn of the U-frame upon every change of stroke, and permits the ready and very easy accomplishment of the movement necessary for feathering, the oar in all cases being noiseless in its action.

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

1. In an oar-lock, the combination, with the hinged ring A, provided with an exterior integral flange, B, and an outer hinged ring, D, adapted to receive inner ring, A, and provided with trunnions *d*, of the U-frame E, provided with journals F F', adapted to receive said trunnions, substantially as herein shown and described.

2. In an oar-lock, the combination, with the hinged sectional ring A, provided with an exterior integral flange, B, and adapted to clamp an oar, an outer hinged sectional ring, D, provided with trunnions *d*, and means for securing the ends of said sectional rings, of the U-frame E, provided with a covered journal, F, and an opposite journal, F', having a hinged cap, N, adapted to receive said trunnions, substantially as shown and described, and for the purpose set forth.

3. In an oar-lock, the combination, with the hinged sectional ring A, adapted to clamp an oar and provided with an exterior integral flange, B, having a recess, *b*, an outer hinged sectional ring, D, provided with trunnions *d*, and means for securing the ends of said sectional rings, of the U-frame E, provided with a covered journal, F, and an opposite journal, F', provided with a hinged cap, N, and a spring, P, adapted to control said cap, substantially as shown and described, and for the purpose herein set forth.

4. The combination, with an oar, M, of a sectional ring, A, adapted to clamp said oar, provided with an exterior integral flange, B, having a recess, *b*, and an outer hinged sectional ring, D, provided with trunnions *d*, substantially as shown and described.

5. The combination, with the U-frame E, provided with a closed journal, F, having a recess, *f*, and the opposite journal, F', having a cap, N, hinged thereon, provided with a longitudinal groove, *m'*, and a spring, P, having a projection, P', adapted to enter said groove, of the inner ring, A, adapted to clamp an oar, provided with an integral annular flange, B, and the outer sectional ring, D, provided with integral trunnions *d*, adapted to enter said journals, substantially as shown and described.

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Witnesses:
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