

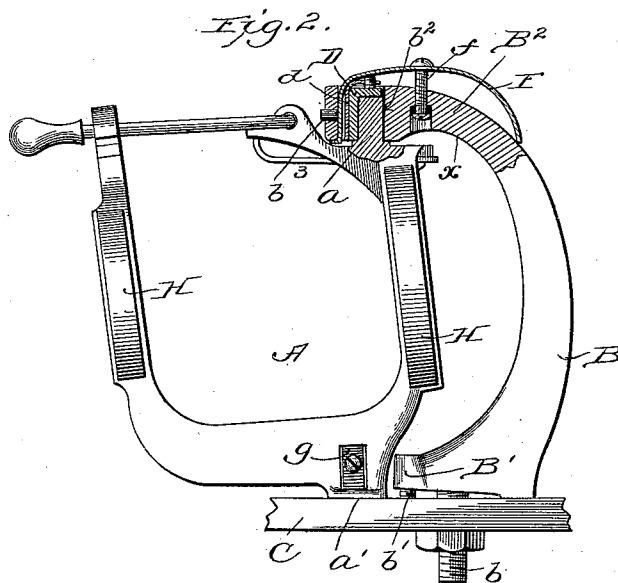
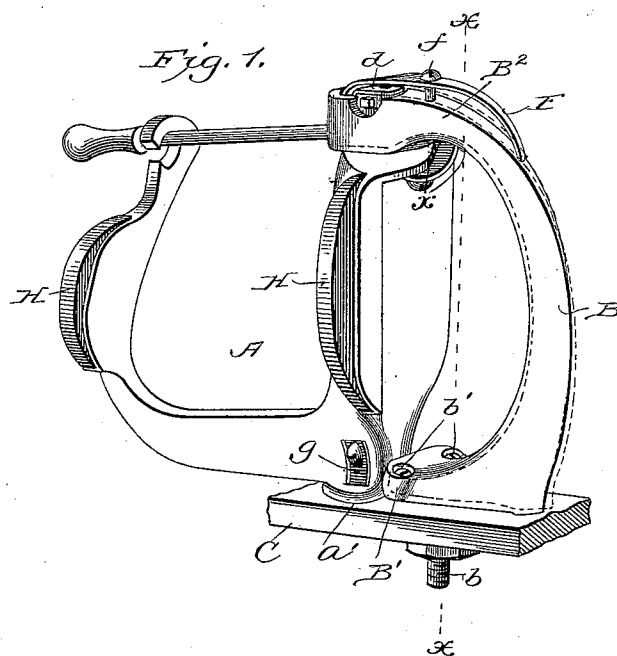
(Model.)

3 Sheets—Sheet 1.

M. F. DAVIS.
ROWLOCK.

No. 540,580.

Patented June 4, 1895.



witnesses:

Harry S. Pomeroy.
Herbert Bradley.

Inventor:

Michael F. Davis.
by L. Deane & Son.
Attorneys.

(Model.)

3 Sheets—Sheet 2.

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Fig. 3.

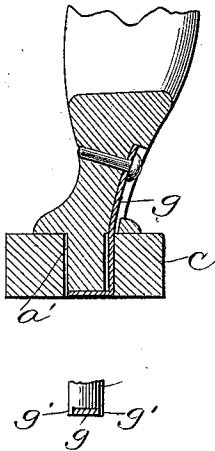


Fig. 4.

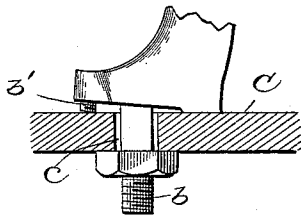


Fig. 5.

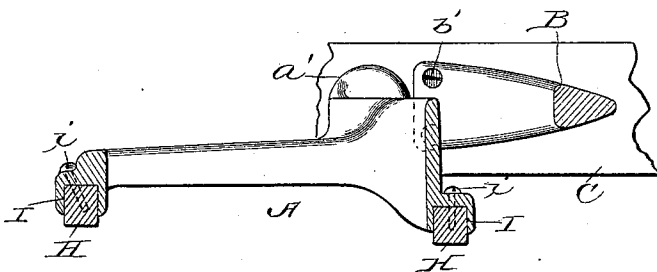
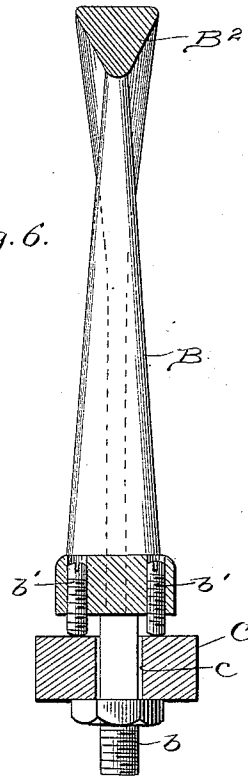


Fig. 6.



witnesses:

Harry S. Pomeroy.
Herbert Bradley.

Inventor:

Michael F. Davis.

by L. Deane & Son
Attorneys.

(No Model.)

3 Sheets—Sheet 3.

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Fig. 7.

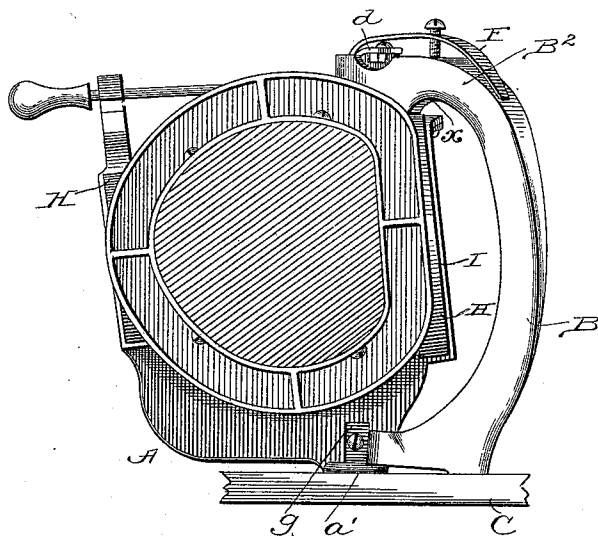
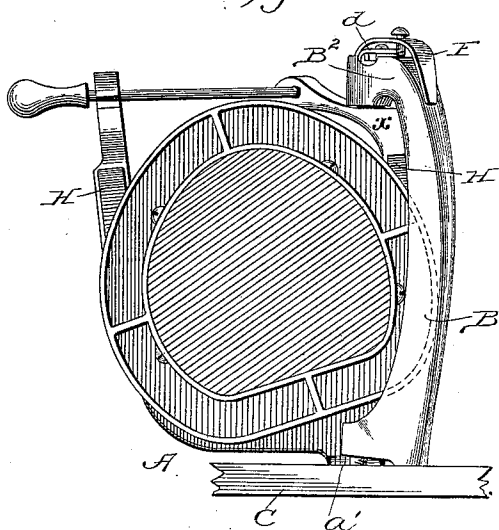


Fig. 8.



witnesses:

Harry D. Rohrer.
Herbert Bradley.

Inventor:

Michael F. Davis.
by L. Deane & Son
Attorneys.

UNITED STATES PATENT OFFICE,

MICHAEL F. DAVIS, OF DETROIT, MICHIGAN.

ROWLOCK.

SPECIFICATION forming part of Letters Patent No. 540,580, dated June 4, 1895.

Application filed March 29, 1895. Serial No. 543,724. (Model.)

To all whom it may concern:

Be it known that I, MICHAEL F. DAVIS, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Rowlocks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Figure 1 is a perspective view of this device. Fig. 2 is a detail in front elevation and partly in section of the top of the standard and the upper journal of the rowlock which swings on the same, parts of the standard front being broken away to show the position of the parts inside. Fig. 3 is a detail view of the lower journal of the rowlock, the outrigger-plate broken away. Fig. 4 is a detail in section, showing the means by which the standard may be raised into or out of a vertical line. Fig. 5 is a horizontal section on a line through the sides of the rowlock proper; Fig. 6, a section of standard on line *xx*, Fig. 1; Fig. 7, a detail showing the oar in section as at the finish of full stroke; Fig. 8, a detail showing the oar in section on the feather.

This device belongs to the class of inventions known as row locks, and the points of novelty relate more particularly to the buffers or parts against which the oar buttons impinge; and the adjustability of the standard whereby it can be placed in any desired vertical or inclined position; to the adjustment of the journals within their boxes; and to the structure of the several parts, and to the details of the combination of the several parts and to the device as a whole.

This row lock except as it is modified by the description hereinafter, may be of any usual or ordinary kind of this class of devices.

In the drawings, A, denotes the swinging part of the lock journaled at *a* in the standard B, above, and at *a'* in the outrigger plate C below. The standard is in general shape of any well known form, and is secured by its bolt *b* to the outrigger plate. This standard has heretofore been fixed in a vertical position; but this position should be variable to meet the imperfections of the oars which imperfections are occasioned by the atmospheric

conditions, as well as the faulty construction, or by the manner in which they are placed to rest when not in use. The only way heretofore adopted to overcome the objections as a whole or in part, has been by cutting and consequently injuring the oar; but even then the desired recut was very imperfectly attained.

To vary the position of the standard from a vertical to an inclined position, the hole *c* in the outrigger plate is slightly larger than the bolt *b*, and through the extended base *B'* of the standard are passed the screws *b'*. By moving them upward the base will come to a level with the outrigger plate; but by screwing both down the extended base will be tilted up, and thus the upper part of the standard may be set at any desired position forward or aft. By screwing down either screw alone any desired in-board or out-board inclination may be secured. Normally, the base screws are drawn slightly down and the extended base slightly raised. The upper journal *a* of the swinging part passes through the hole *b²* in the overhanging part *B²* of the standard and on the aft side of this journal is the casting or block D, concaved on the inner side to receive the aft part of the journal and flat underneath to press on the top of the journal, while the spring *d*, is adjustably screwed at one end to the top of the block and extends down at the side of the block, and between it and the spring F, which latter spring is adjustably attached to the top of the standard by the screw *f*, and at one end passes down between the spring *d* and the inner wall of the hole *b²*. Thus the spring *d* presses the lower part of the block against the journal, while the spring F forces the top of the block down upon the top of the journal, and also exerts a pressure upon the side of the block. Through the end of the overhanging part of the standard is the adjustable screw *b³* to take up the wear of the journal. This spring F after passing through the hole *b²* is bent square. The object of this structure is to prevent lost motion of the movable part of the row lock and consequent click and jar, which are so depressing to the oarsman when rowing at high speed.

Attached to the lower journal *a'*, at a point above the outrigger plate, is the spring *g* ex-

tending down through the plate C and at its bent end between the flanges *g'* on the lower end of the journal. This spring prevents the lost motion of the lower journal and obviates the click and rattle of it.

The buffers H which are made of leather, vulcanite or any desirable or suitable material, and placed respectively in the recesses or grooves I in the inboard faces of the upright part of the swinging portion of the lock so that their edges project slightly beyond the same, are designed to act as buffers against which the face of the oar collar or button operates when the oar is used. These buffers fit so tightly in these grooves or recesses that under any ordinary conditions they will be held in place without any retaining device; but for certainty the screws *z* are put through the back of the recess and into the rear edge of the buffer.

It will be observed that the upper part of the standard is arched at *x* on the under side forward of its box and at this point is triangular in cross section, the apex being on the under side. This construction enables the pivoted side of the swinging part of the lock to turn freely beyond the standard, and also affords a recess for the oar button or collar. By the common construction heretofore used this full movement could not be obtained, as the swinging side impinged against the standard. Thus the movement of the oar was much limited. By my present structure the full stroke of the oar can be made without any interference with the standard. This construction and operation will be fully understood at a glance by any one skilled in these matters on inspection of Figs. 6, 7 and 8.

While I have shown the buffers set in recesses at the upright part of the swinging part of the lock, it is possible that one could be placed on the lower horizontal part, but this construction is not desirable, either in view of the construction or in use.

While I have above shown the pressure at the top and side of the upper journal as accomplished by springs, it will be evident to

those skilled in this line of invention that the pressure can be obtained by lateral screws. This structure will accomplish the same general end as the springs but is not, in my opinion, so desirable.

Having thus described my invention, what I claim is—

1. In a row lock, a standard adapted to be inclined forward or aft, inboard or outboard, and means for securing the same to the outrigger plate as may be desired, substantially as described.

2. In a row lock, a standard secured to the slotted outrigger plate, and having screws in its extended base, whereby it can be secured vertically or at any desired inclination to the outrigger plate, substantially as set forth.

3. In a row lock, the combination of the journals of the swinging part with the springs pressing down upon and laterally against the top of the upper journal, and the spring pressing against the side and end of the lower journal, substantially as and for the purposes set forth.

4. In a row lock, the standard, the swinging part journaled in the standard in the manner described, and with the springs and block fitting about and over the upper journal, as and for the purposes set forth.

5. In a row lock, the standard the swinging part journaled at the top and bottom in the standard, and having its lower journal combined with a spring whereby it is so held in position as to prevent click or noise as the rowing is done, all substantially as set forth.

6. In a row lock the swinging part having attached to each of the inboard faces of its upright parts, a buffer to receive the impact of the oar collar or button, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

MICHAEL F. DAVIS.

Witnesses:

H. M. STERLING,
L. DEANE.