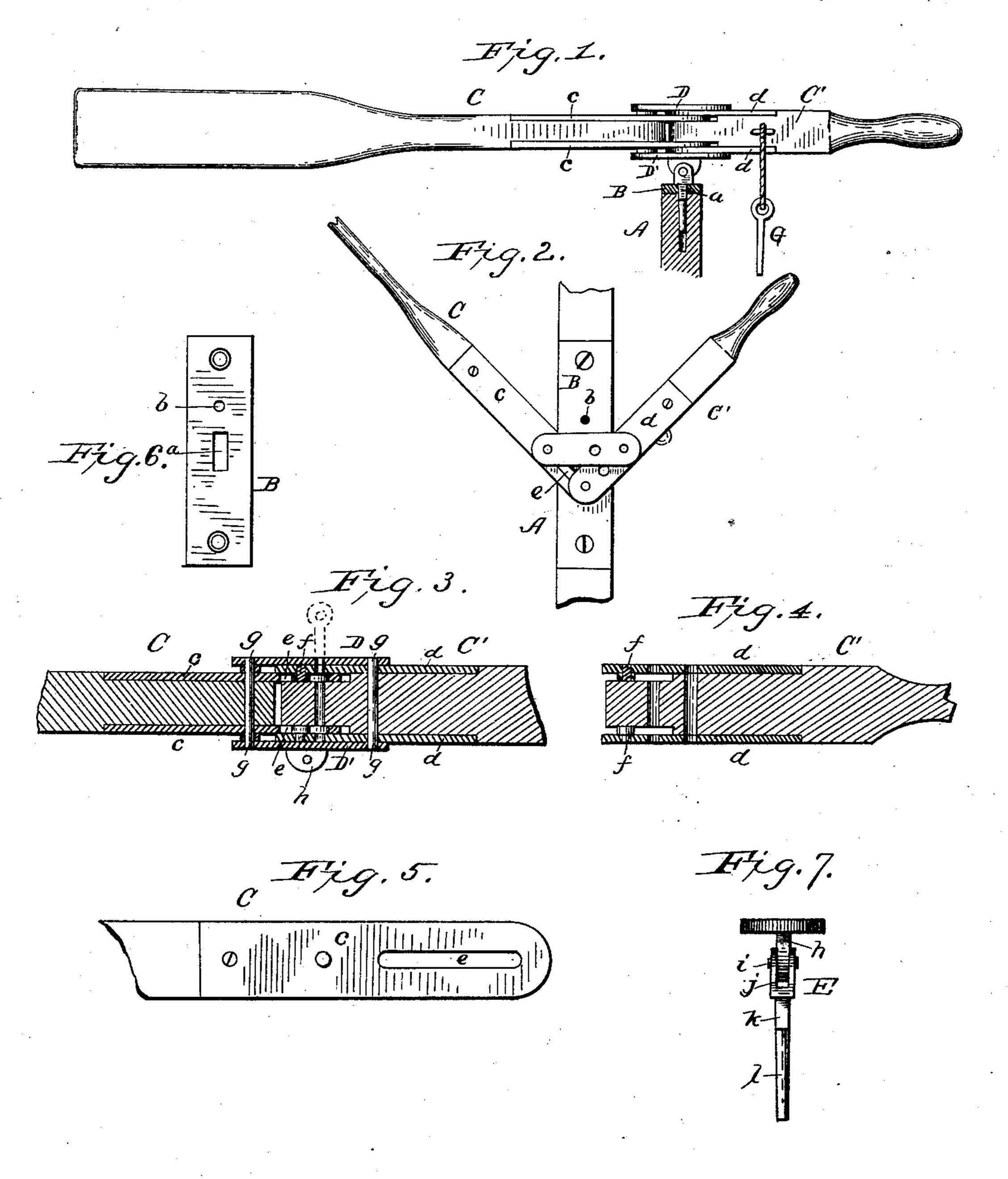
(No Model.)

## T. E. STREETER.

BOW FACING OAR.

No. 359,230.

Patented Mar. 8, 1887.



WITNESSES John S. Finch J. CKOKOams

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## United States Patent Office.

THOMAS E. STREETER, OF ALLEGAN, MICHIGAN.

## BOW-FACING OAR.

SPECIFICATION forming part of Letters Patent No. 359,230, dated March 8, 1887.

Application filed December 20, 1886. Serial No. 222,095. (No model.)

To all whom it may concern:

Be it known that I, THOMAS E. STREETER, a citizen of the United States, residing at Allegan, in the county of Allegan and State of Michigan, have invented certain new and useful Improvements in Row-Boats, of which the following is a specification, reference being had therein to the accompanying drawings.

Figure 1 is a side elevation of my improved to rowlock applied to the gunwale of a boat, which is represented in section, showing pin in the rectangular slot of the lock-block. Fig. 2 is a top view of the rowlock, showing the joints flexed. Fig. 3 is a vertical sectional 15 view in detail of the oar, showing the swivelpin and the compound joints uniting the two parts of the oar, portions of which latter are broken away. Fig. 4 is a longitudinal section through the vibrating portion or handle of the 20 oar. Fig. 5 is a top view of the shank of the blade, showing the slotted plate and link-pivot. Fig. 6 is a top view of the slotted and circularly-perforated plate of the oar-lock block detached from this block. Fig. 7 is an end view 25 of the lower link and the pivoted swivel and locking-pin applied to it.

This invention relates to certain novel improvements which relate to rowlocks of the jointed kind, which are adapted to be used by a person either facing the stern or bow of a boat, which improvements will be fully understood from the following description when taken in connection with the annexed drawings.

Referring to the annexed drawings by letters, A designates the block of the rowlock, which is rigidly secured upon the rail of a boat in any suitable manner, and which is faced on top with a metal wearing-plate, B, having an oblong slot, a, and a circular aperture, b, vertically through it for purposes hereinafter explained. Below the said slot and circular aperture the block A is recessed.

O designates an oar-blade, and C' the handle or inner section thereof. The blade may be feathered and spooned in any suitable manner. On the top and bottom of its shank are rigidly secured plates e e, the extensions of which are longitudinally slotted, as indicated at e e, and longitudinally slotted.

on the top and bottom of the handle C' are 50 similarly secured plates d d. The extensions of the plates c c are recessed into the end of the handle C', and connected to this handle by pivot-pins f on the plates d d, as clearly shown in Fig. 3, thus jointing the handle to the blade. 55 The pivot-pins may be provided with anti-friction rings or collars, if desired.

D D' designate two links, which are connected by vertical pivots g g to the handle C' and shank of the blade C, as shown in Fig. 3. 60 The pivot-pins f, which are rigidly secured to the two plates d d, above described, pass freely through the slots e e, thus forming a shifting-fulcrum for the handle and oar-blade.

On the bottom of the link D' is rigidly se- 65 cured an ear, h, to which is connected, by a transverse pivot-pin, i, a swivel, E, consisting of a clip, j, a rectangular shank, k, and a swivel-pin, l. The pin i allows the oar to receive vertical vibration, and the link-pivots 70 allow the handle and blade of the oar to receive horizontal vibrations.

In operation, when the shank k of the swivel E is adjusted in the oblong slot a of the blockplate B, a person sitting in a boat, with his 75 face either toward the bow or stern, can conveniently row without the part lettered E swiveling. By inserting the part E in the aperture b and putting a pin, G, through the upper link, D, and upper plates c d, as indi- 80 cated in dotted lines in Fig. 3, the joints between the oar-blade and its handle will be locked, and the oar used like any common rigid oar swiveled to the oar-block. In either instance the oar can be let go without danger 85 of losing it in the water, and it can be manipulated with perfect freedom and little or no loss of power.

Having described my invention, I claim—
1. The combination, with the oar-blade and 90 its handle, of the slotted plates secured to the shank of the blades, the plates secured to the handle and connected by a shifting-fulcrum pin, the links on the top and bottom of the blade and handle, and a swivel, E, adapted 95 for the apertures through the wearing-plate of the block A, substantially as and for the purposes described.

2. The combination, with the oar blade and handle, jointed together and provided with a shifting-fulcrum pin, and a swivel jointed to the bottom link, as described, of a removable pin adapted to lock the parts which joint the blade to the handle, substantially as described.

3. The combination of the oar blade and handle, jointed together as described, with the swivel E, pivoted to the lower link, D', and

constructed with a round pin and square portion adapted to the wearing-plate, perforated as specified, and a locking-pin, as set forth.

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

THOMAS E. STREETER.

Witnesses:
J. B. STREETER, Jr.,
MARY BASSETT.