No. 692,084. Patented Jan. 28, 1902.

G. F. SPRAGUE.

BOW FACING OAR.

(Application filed July 30, 1901.)

(No Model.)

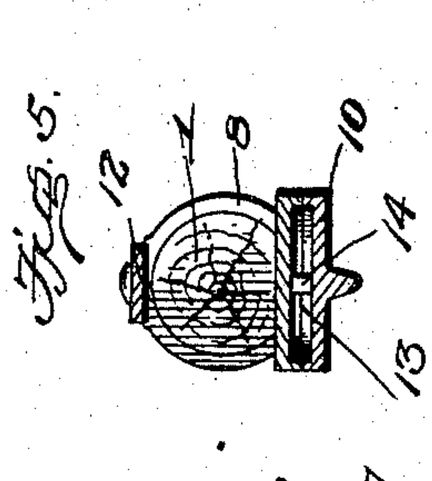

Fig. 5.

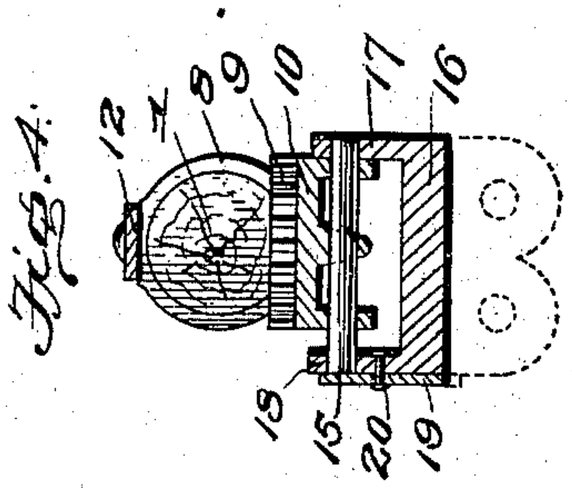

Fig. 4.

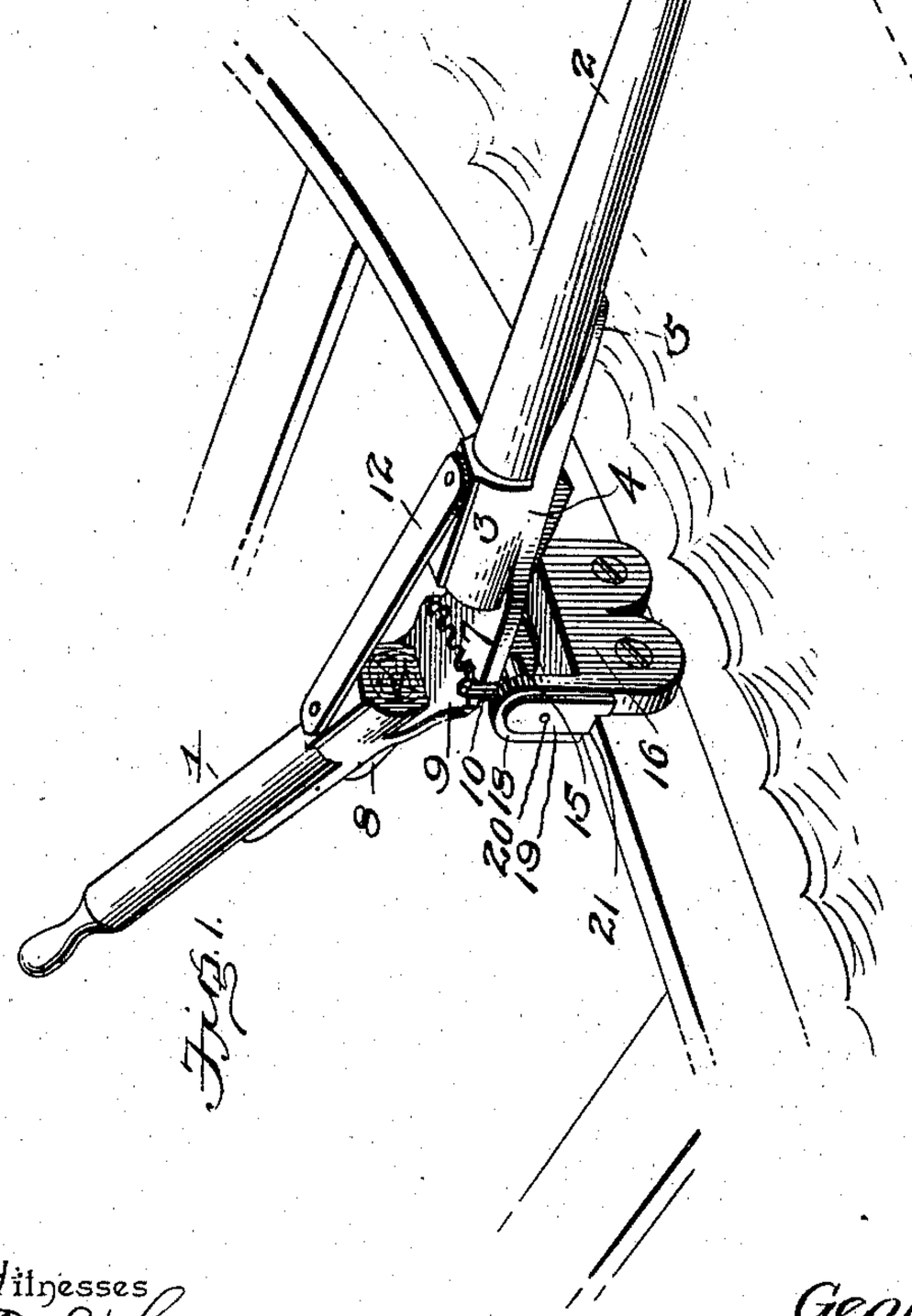

Fig. 1.

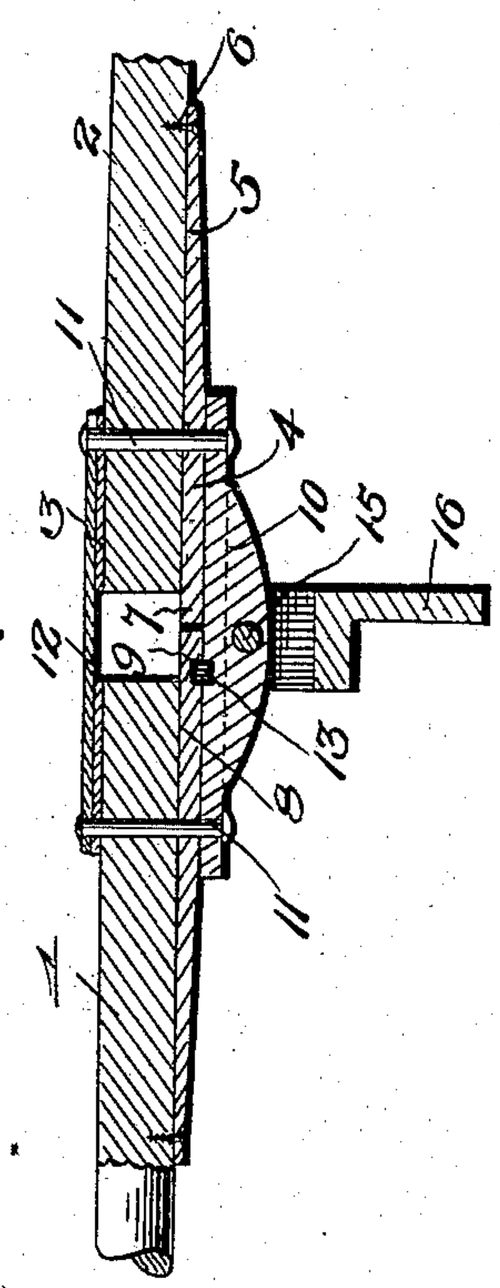

Fig. 3.

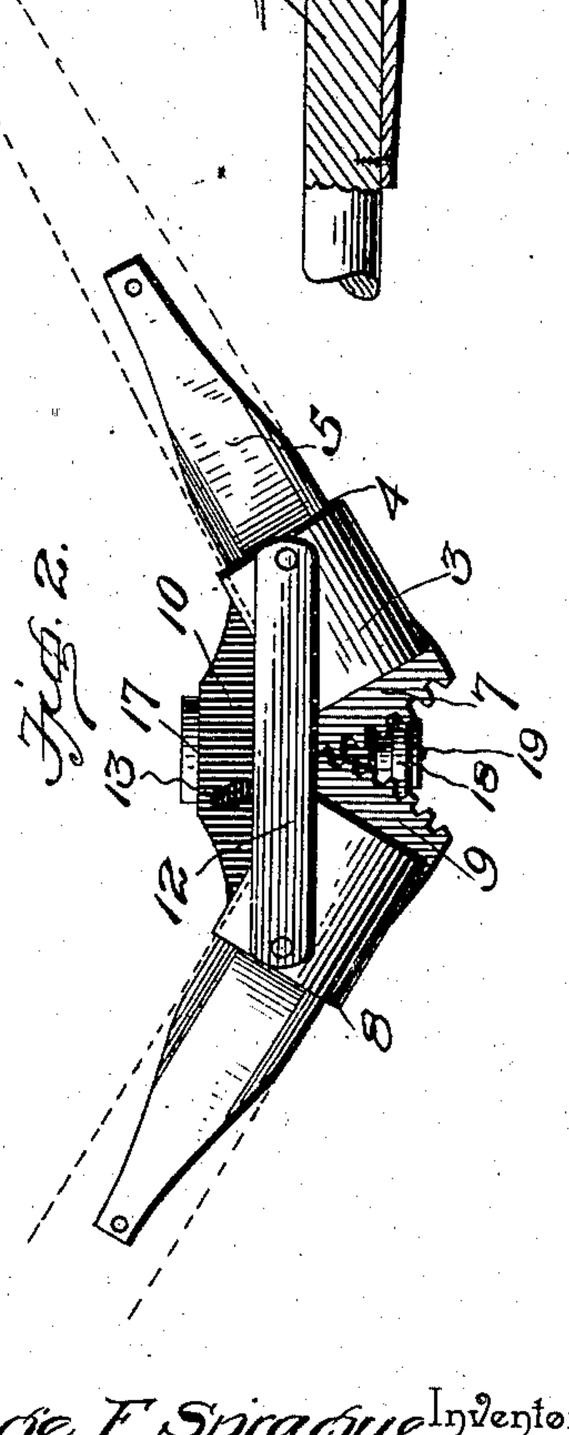

Fig. 2.

Witnesses
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UNITED STATES PATENT OFFICE.

GEORGE FRANKLIN SPRAGUE, OF GETTYSBURG, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO S. H. GARISS, OF PORT JERVIS, NEW YORK.

BOW-FACING OAR.

SPECIFICATION forming part of Letters Patent No. 692,084, dated January 28, 1902.

Application filed July 30, 1901. Serial No. 70,278 (No model.)

To all whom it may concern:

Be it known that I, GEORGE FRANKLIN SPRAGUE, a citizen of the United States, residing at Gettysburg, in the county of Adams and State of Pennsylvania, have invented a new and useful Bow-Facing Oar, of which the following is a specification.

My invention is an improved bow-facing oar; and it consists in the peculiar construction and combination of devices hereinafter fully set forth and claimed.

In the accompanying drawings, Figure 1 is a perspective view of a bow-facing oar embodying my improvements, showing the same in operative position in an oar-lock on the gunwale of a boat. Fig. 2 is a detail top plan view of my improved bow-facing oar. Fig. 3 is a detail longitudinal central sectional view of the same. Fig. 4 is a vertical transverse sectional view taken through the oar and the oar-lock. Fig. 5 is a detail transverse sectional view taken through the oar on a different plane.

The oar comprises the inner section 1 and the outer section 2. The inner end of the outer section 2 is secured in a tubular socket 3, with which a holder 4 is provided, the said holder having an outwardly-extending arm 5 under the oar-section, and to which the latter is secured, as at 6, by a screw or other suitable device, and the said holder 4 has its inner portion formed into a gear-segment 7. The inner section of the oar is secured to a holder 8, which is of substantially the same construction as the holder 4, and the gear-segment 9 of said holder 8 engages the gear-segment 7 of said holder 4. The said holders are each fulcrumed and supported upon a coupling-base 10 by bolts 11, the upper ends of which are connected together by a link 12. Hence the sections of the oar are geared and coupled together, and it will be understood that when the inner section of the oar is moved in one direction the outer section thereof will be moved in the same direction. The bolts 11 also pass through the oar-sections and secure them in the socket of the holders.

In order to limit the stroke of the oar and prevent the sections thereof from becoming disconnected from each other, I provide a holder 8 and the coupling-base 10 in their opposing sides with alined communicating segmental grooves 13, which are concentric with the pivotal bolt 11 of said holder 8, and in the said segmental grooves I place a block or roller 14, which is capable of movement in the said grooves from end to end of the latter, which block coacts with the ends of the grooves to form stops, which limit the stroke of the oar and prevent the segmental gears 7 9 from becoming disengaged.

The coupling-base 10 has a pivot 15, which is disposed transversely thereof at the center of said coupling-base, and the ends of the said pivot project beyond the sides of the said coupling-base, one of the said projecting ends of the pivot being longer than the other.

The oar-lock 16 is adapted to be secured to the gunwale of a boat either as here shown or by any other suitable means, and the standards 17 18 thereof are provided with openings to form bearings for the ends of said pivot 15. The width of the space between the said standards somewhat exceeds the width of the coupling-base 10, as is shown in Fig. 4, and thereby the said coupling-base is adapted to be readily mounted in and detached from the said oar-lock. To prevent lateral movement of the coupling-base in the oar-lock, which would cause the oar to become unshipped from the oar-lock, I provide a gravity-lock 19, which is pivoted on the outer side of the standard 18, as at 20. The upper end of the said gravity-lock is adapted to engage one end of the pivot 15 to prevent the latter from moving longitudinally after being mounted in the oar-lock, and the said gravity-lock, being heavier at its lower end than at its upper end, is retained normally in locked position. The lower end of the said gravity-lock is notched, as at 21, to engage the gunwale.

It will be understood from the foregoing that the pivotal connection between the oar and the oar-lock adapts the oar for vertical movement, so that the blade thereof may be readily dipped in and raised from the water in rowing, and that the oar cannot become unshipped from the oar-lock until after the gravity-lock 19 has been turned to uncover the longer projecting end of the pivot 15.

The link 12, which connects the fulcrum-bolts 11 together, greatly strengthens the connection between the sections of the oar and correspondingly relieves the holders 4 8 of stress.

Having thus described my invention, I claim—

1. In a bow-facing oar, the combination of a coupling-base, holders pivotally mounted thereon and intergeared, one of said holders and said coupling-base being provided with alined communicating segmental grooves, and a stop in said grooves, and movable longitudinally therein, substantially as described.

2. An oar-lock having bearing-standards and a gravity-lock pivoted near its upper end on one of said standards, in combination with an oar having an axially-movable pivot adapted to engage said bearing-standards, the upper portion of said gravity-lock being adapted to engage said pivot, to lock the latter against longitudinal movement in said bearing-standards, and the lower end of said gravity-lock having a notch on one side to engage the gunwale, substantially as described.

3. In a bow-facing oar, the combination of a coupling-base, a pair of holders thereon having intermeshed gear-segments and each having a tubular socket, oar-sections with their inner ends fitted in said tubular sockets, a link connecting the said holders together, and bolts connecting the holders to the coupling-base and forming the pivots of the holders, said bolts extending through the holders, oar-sections, and the end portions of the link, and thereby connecting the link to and securing the oar-sections in the holders, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

GEORGE FRANKLIN SPRAGUE.

Witnesses:

JAMES W. BUMBAUGH,

JUNE F. TIPTON.