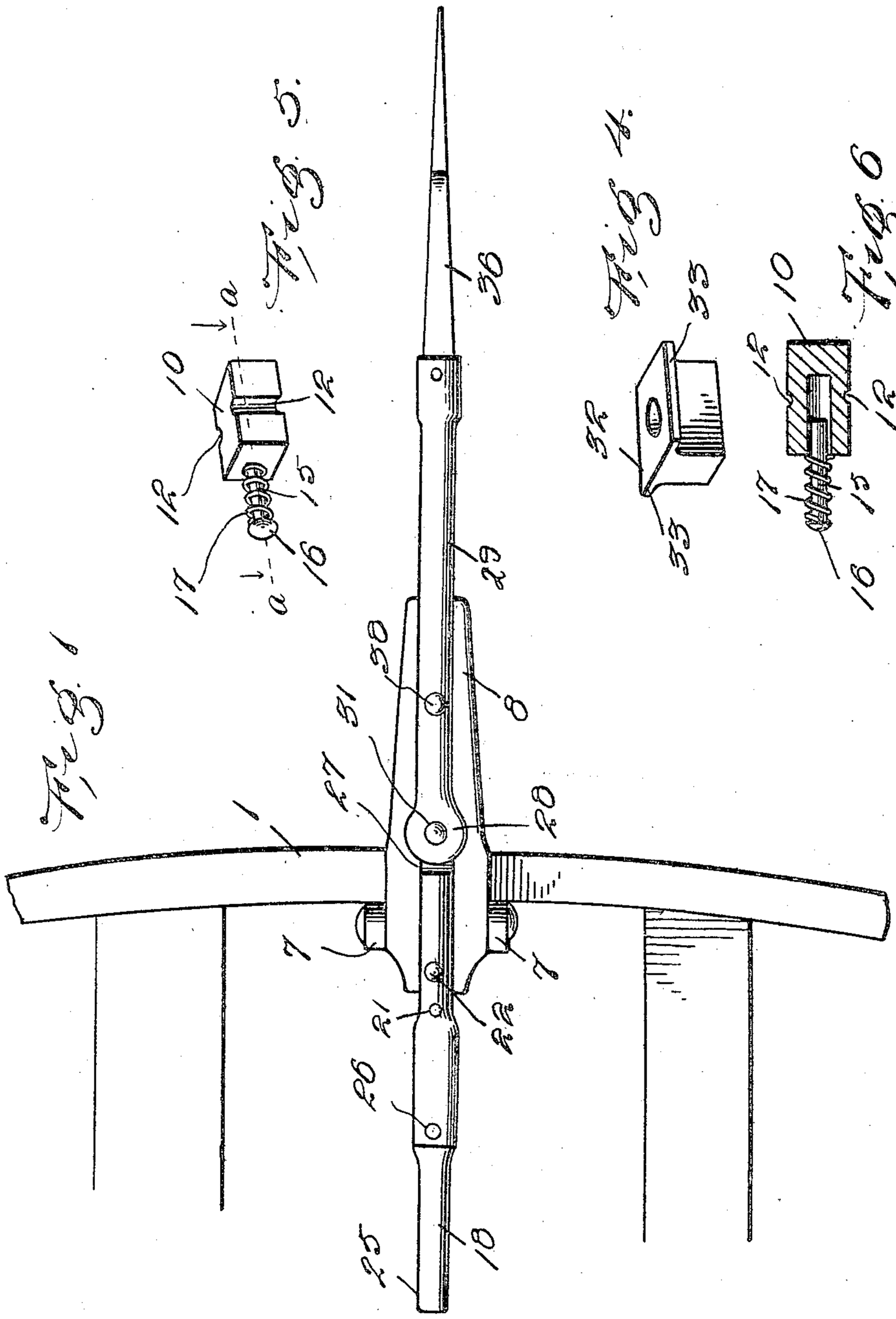
No. 767,214. PATENTED AUG. 9, 1904.

J. H. DURANT.

BOW FACING OAR.

APPLICATION FILED OCT. 13, 1903.

NO MODEL. 2 SHEETS—SHEET 1.



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NO MODEL. 2 SHEETS—SHEET 2.

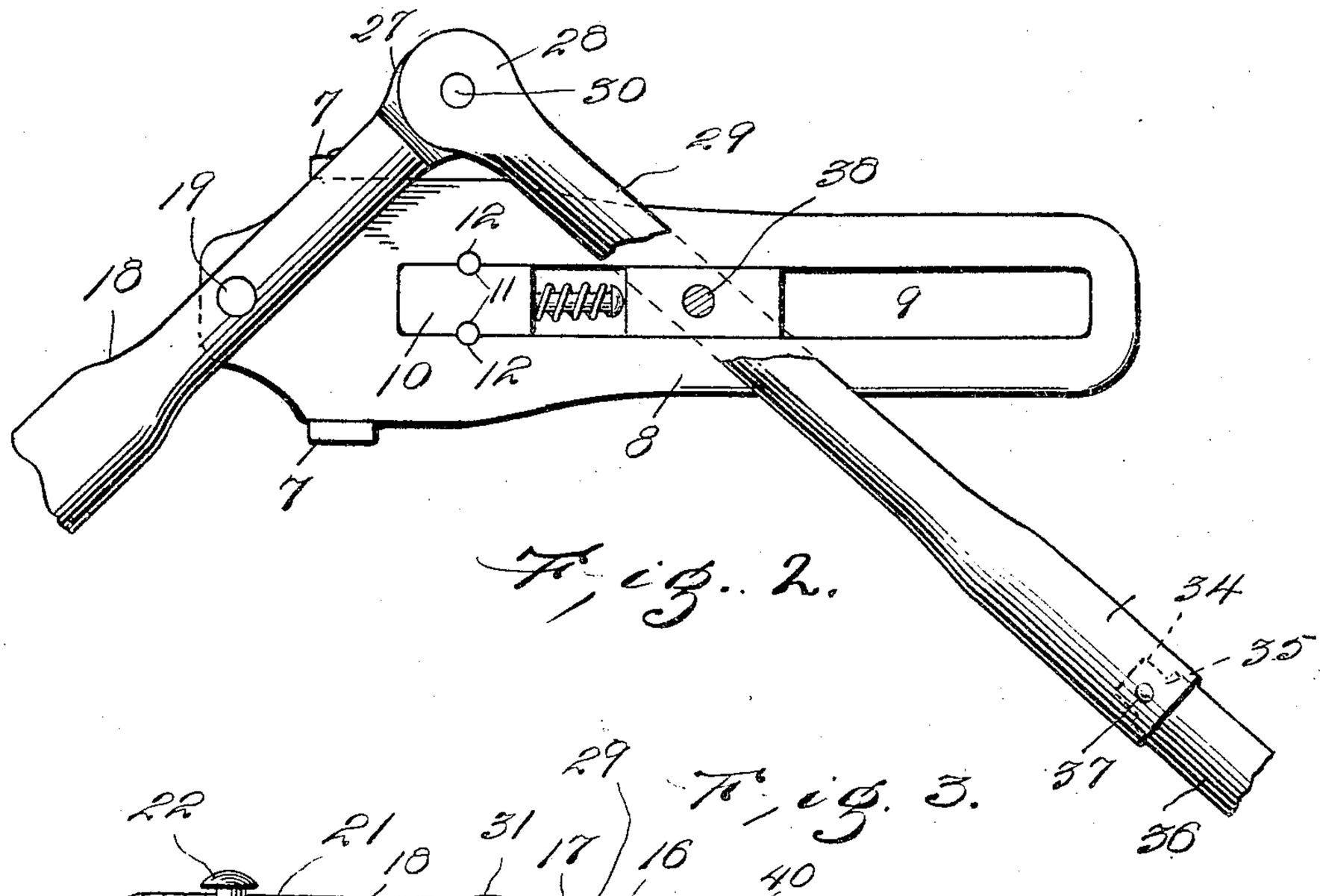

Fig. 2.

Fig. 5.

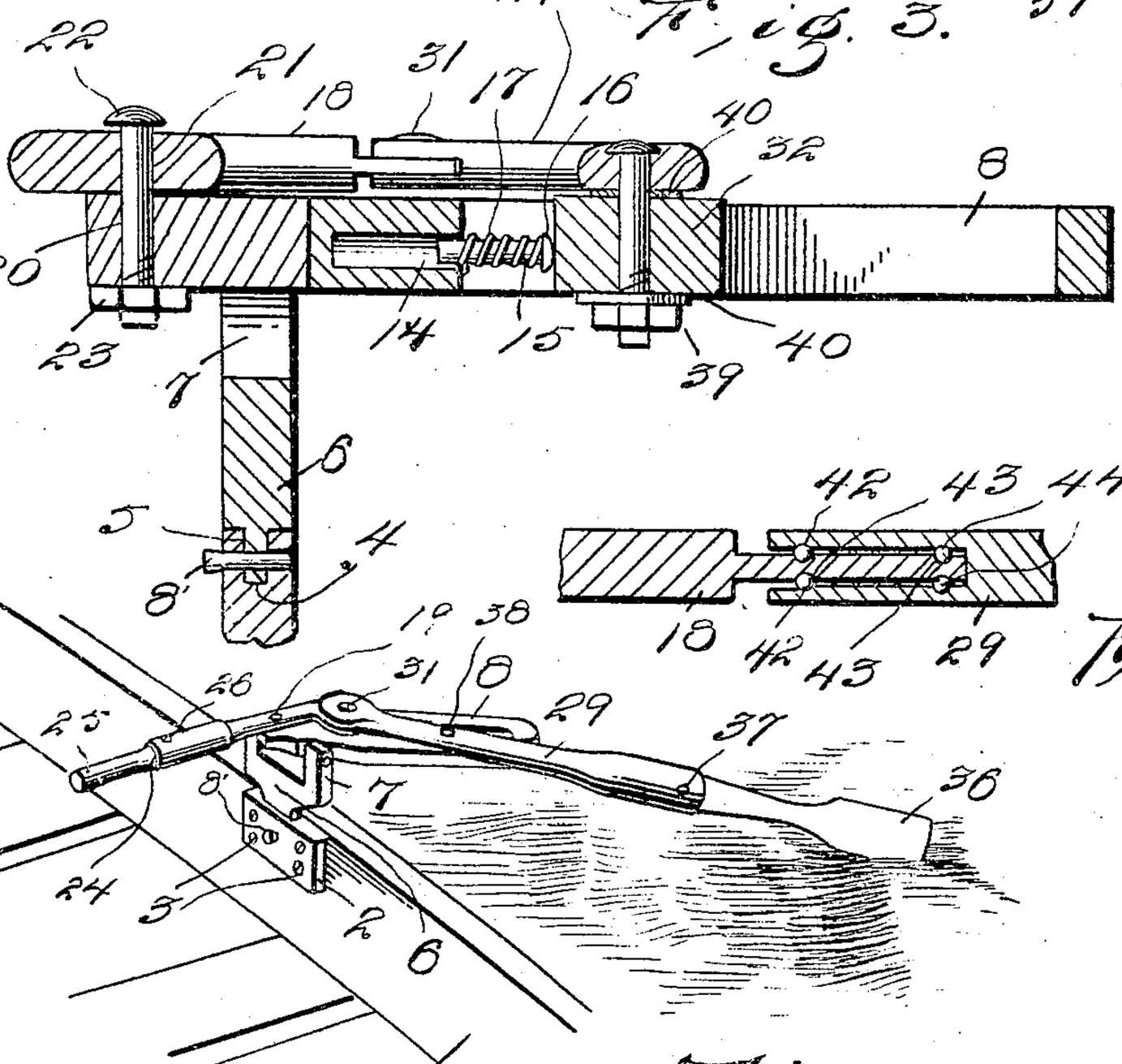

Fig. 7

Fig. 8.

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No. 767,214. Patented August 9, 1904.

UNITED STATES PATENT OFFICE.

JOSEPH H. DURANT, OF HARRISVILLE, NEW HAMPSHIRE.

BOW-FACING OAR.

SPECIFICATION forming part of Letters Patent No. 767,214, dated August 9, 1904.

Application filed October 13, 1903. Serial No. 176,914. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH H. DURANT, a subject of the King of England, residing at Harrisville, in the county of Cheshire, State of New Hampshire, have invented certain new and useful Improvements in Bow-Facing Oars; 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.

This invention relates to rowing apparatus, and has particular reference to bow-facing oars.

One object of the invention is to provide a simple, cheap, durable, efficient, and otherwise highly-satisfactory means for propelling row-boats or other small water-craft.

Another object of the invention is to provide a bow-facing oar of such a character that should one part thereof become broken or otherwise damaged the injured part may be readily replaced.

A still further object of the invention resides in a structure wherein the stroke of the oar may be rendered adjustable.

A still further object lies in a peculiarly constructed and formed oar including means for effecting a cushioning action between certain parts thereof.

With these and other objects in view the present invention consists also in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the present invention.

In the drawings, Figure 1 is a plan view of a portion of a boat having my improved oar secured thereto. Fig. 2 is a detail plan view, on an enlarged scale, illustrating the follower-block in contact with a buffer. Fig. 3 is a vertical longitudinal sectional view. Fig. 4 is a detail perspective view of the follower-block. Fig. 5 is a detail perspective view of the cushioning-block or buffer, including the spring member thereof. Fig. 6 is a sectional view on the line *a a* of Fig. 5, and Fig. 7 is a detail sectional view of a modified means of mounting and connecting the handle and blade stocks. Fig. 8 is a perspective view showing oar applied.

Referring now more particularly to the drawings, the reference character 1 designates a row-boat having a plate 2, of metal or other suitable material, secured to its inner wall by means of screws or other fastenings 3, the upper surface of said plate lying, preferably, flush with the upper edge of the boat and having a central opening 4 therein, forming a seat for the reception of the reduced end 5 of the oar-lock 6, whose upper end is bifurcated, forming the ears 7. The oar-lock thus formed is held within its seat by means of a fastening 8′, as well understood.

Pivotally connected to the upper extremities of the ears 7 is a plate 8, of metal or other suitable material, having an elongated longitudinal opening or slot 9, within which and at the upper end whereof is arranged a block 10, having oppositely-disposed vertical grooves 11, adapted to aline with corresponding grooves 12 in the inner face of the slot 9, pins, keys, or other fastening means being inserted within the corresponding grooves to retain the said block in fixed position. This block 10 is provided with a central bore 14, which terminates short of one end thereof, and is adapted to receive a plunger 15, having a head 16, between which and the bored end of the block is arranged a coil-spring 17, encircling the plunger and adapted to hold the plunger free from the end of the said bore for a purpose hereinafter explained. It is to be understood, however, that the block 10 may be secured within the slot 9 in any other suitable manner and that the same, with its adjunctive parts, forms a cushioning means between the plate 8 and the inward stroke of the follower-block.

Loosely mounted for pivotal movement upon the plate 8 is arranged an oar-handle

stock 18, of any suitable material, the pivoted connection being made by means of a bolt or the like 19 piercing the opening or perforation 20 at the extreme inner end of the plate and passing through one of a plurality of perforations in the stock, the bolt or the like having a head 22 at one end and screw-threaded at its opposite end for the reception of the nut 23, thereby preventing accidental displacement thereof. As will be understood, the bolt 19, which is engaged with the perforation 20, may be engaged interchangeably with the perforation 21 to vary the stroke of the oar. The inner end of this stock is enlarged in cross-sectional diameter and provided with a central bore 24 for the reception of the handle proper, 25, which is secured therein by means of the fastening or other element 26. The extreme opposite end of the stock is reduced to form a tongue 27, adapted to be fitted between the spaced ears 28 at the inner end of the blade-stock 29, formed of any suitable material, the tongue and ears being pierced by a pivot-pin 30, having a head 31 at one end and its opposite end riveted or otherwise formed to render the pin immovable.

Mounted within the slot 9 is a follower-block 32 of any suitable material, having its upper portion flanged on either side, as indicated by the reference character 33, the under surface of the flange contacting with and sliding upon the upper face of the plate 8 and the remainder of the block sliding within the said slot.

The oar-blade stock 29, above mentioned, has one of its ends enlarged and provided with a central bore 34 for the reception of the reduced end 35 of the oar-blade proper, 36, a fastening 37 of any suitable character being employed to secure these two elements together. A headed pivot-pin 38 pierces the stock 29 and penetrates the follower-block 32, having its free screw-threaded end protruding beneath the under face of the plate 8 and provided with a nut 39, a washer 40 being disposed between the nut and the under face of the plate to insure against dislodgment thereof and to permit the same to work with the follower-block within the slot 9.

The flanges 33 cause the upper face of the follower-block to set slightly above the upper face of the plate 8, which, together with the washer 41, encircling the pivot-pin and disposed between the handle-stock and plate 8, supports both stocks above the plate for a purpose well understood.

In Fig. 7 of the drawings there is illustrated a modified construction between the handle and blade stock connections 18 and 29, respectively. For instance, circular grooves 42 may be formed in the inner faces of the ears 28 of the blade-stock and corresponding grooves 43 arranged in the outer faces of the tongue 27 of the handle-stock, forming raceways for the reception of bearing-balls 44, for a purpose well understood. However, these ball-bearings are not absolutely essential to an easy manipulation of my improved oar, I mentioning them simply for the reason that conditions may arise warranting their employment. It will thus be seen that the handle and blade stocks being pivoted together can be swung backward and forward in a horizontal plane with relation to each other, the follower-block contacting with the cushioning means in the slot at every long stroke of the oar to prevent undue jarring or possible injury to the other elements, and that, the plate 8, upon which the stocks are pivotally mounted, being in turn pivotally supported upon the oar-lock, a vertical swinging movement is permitted also, thus producing a bow-facing oar well arranged and adapted for rowing the boat equipped therewith.

It will of course be understood that the handle and blade proper, together with their respective stocks, may be formed in single pieces, if desired. My reason for forming them as herein described is because I am enabled to remedy a possible defect or injury to any part of each oar by simply removing the defective or injured element without entailing the expense of a complete oar.

I claim—

1. A bow-facing oar comprising a pivotally-mounted plate having a longitudinal slot therein, a follower-block arranged to slide within the slot, a sectional oar having one of its sections pivotally connected with the follower-block and slidable therewith, a buffer disposed within the slot, said buffer comprising a block having recesses in its sides registering with recesses in the sides of the slot, and a pin engaged in each pair of registering recesses to hold the buffer within the slot, said buffer being disposed for engagement by the follower-block.

2. A bow-facing oar, comprising a pivotally-mounted plate, and a sectional oar slidably and pivotally connected thereto, one section of the oar being constructed and arranged for adjustment upon the plate to regulate the stroke of the oar.

3. A bow-facing oar, comprising a plate having a longitudinal slot therein, a buffer arranged at one end of the slot, a follower-block arranged to slide within the slot and abut the buffer, and an oar made up in detachable sections, one section having a pivotal connection with the follower-block, and another section having an interchangeable pivotal connection with the plate, said sections being pivotally connected together.

4. A bow-facing oar comprising a pivoted plate having a longitudinal slot therein, a buf-

fer removably disposed at one end of the slot, a block slidably mounted in the slot and movable into and out of contact with the buffer, and an oar comprising pivotally-connected sections, one of said sections being pivoted to the block and the other section being pivoted to the plate.

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

JOSEPH H. DURANT.

Witnesses:
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