

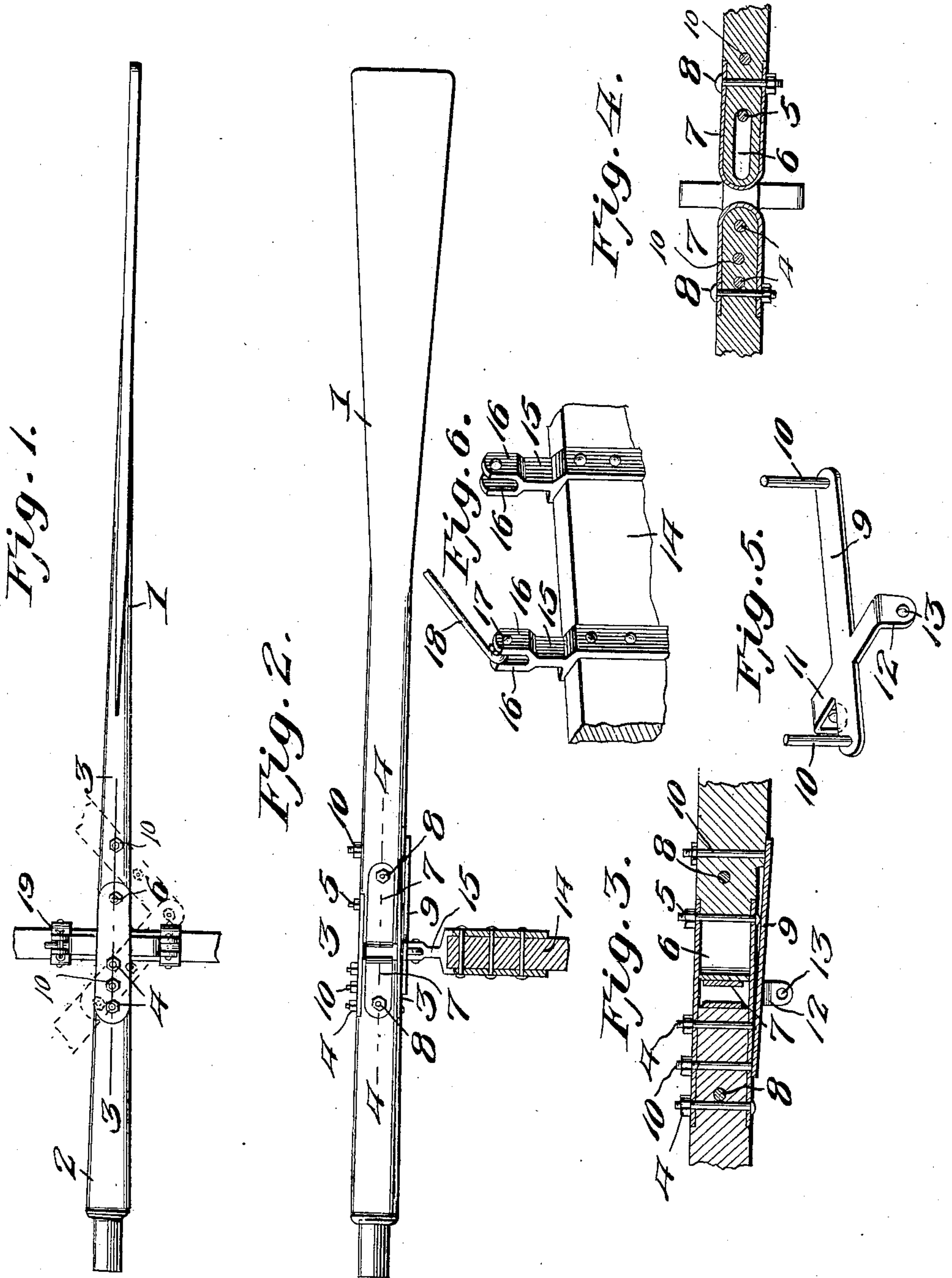
No. 829,899.

PATENTED AUG. 28, 1906.

D. P. SENGER.

OAR.

APPLICATION FILED OCT. 19, 1905.



Witnesses

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# UNITED STATES PATENT OFFICE.

DANIEL P. SENGER, OF GRANVILLE, NORTH DAKOTA.

## OAR.

No. 829,899.

Specification of Letters Patent.

Patented Aug. 28, 1906.

Application filed October 19, 1905. Serial No. 283,503.

*To all whom it may concern:*

Be it known that I, DANIEL P. SENGER, a citizen of the United States, residing at Granville, in the county of McHenry and State of North Dakota, have invented new and useful Improvements in Oars, of which the following is a specification.

This invention relates to oars, and has for its objects to produce a comparatively simple inexpensive device of this character which may be readily installed for use, one which may be rapidly and conveniently operated in propelling a boat, and one whereby a greater propelling force relative to the power exerted may be obtained.

With these and other objects in view the invention comprises the novel features of construction and combination of parts more fully hereinafter described.

In the accompanying drawings, Figure 1 is a detail plan view of an oar embodying the invention and showing the same mounted for use, the stroking position of the oar being shown by dotted lines. Fig. 2 is a side elevation of the oar. Fig. 3 is an enlarged detail section, the section being taken on the line 3 3 of Fig. 1. Fig. 4 is a similar view taken on the line 4 4 of Fig. 2. Fig. 5 is a perspective view of the pivoting member. Fig. 6 is a similar view of the attaching device.

Referring to the drawings, it will be seen that the oar comprises a blade portion or section 1 and a handle portion or section 2, joined to the section 1 by means of upper and lower connecting members or plates 3, rigidly secured by bolts or other fastening members 4 to the section 2 and fulcrumed to the section 1 by means of a pivoting member or bolt 5, entered through a slot 6, formed in the adjacent end of the blade-section 1, there being applied to the meeting ends of the sections 1 and 2 strengthening straps or bands 7, secured in place by horizontal transverse bolts 8. The sections 1 and 2 are further connected by means of a cruciform member or plate 9, having its ends pivoted, respectively, to the oar-sections by means of pintles or bolts 10, and presenting transverse arms 11, terminating in vertically-downturned portions or ears 12, provided with relatively alining perforations 13, it being noted in this connection that during the operation of stroking the oar the sections 1 and 2 swing on their respective pivots 10, during which movement of the parts bolt 5 plays back and forth in the slot 6, for a purpose which will presently appear.

Attached to the side 14 of the boat is a pair of relatively spaced vertical bearings 15, each presenting a pair of spaced ears 16, there being pivoted between the ear 16 of one of the bearings by means of a horizontal pintle 17 one end of a pivoting element or rod 18, adapted to swing vertically on its pivot and having its free end normally secured between the ears 16 of the other bearing member by means of a cotter-pin or key 19, the element 18 serving by engagement with the perforated ears 12 for pivotally connecting the oar with the boat, whereby the oar may swing in a vertical plane during the operation of stroking and dipping the oar.

In practice, during the operation of rowing, the handle-section 2 of the oar is grasped and moved back and forth, as usual, toward and from the oarsman, this action causing the oar-sections to break joint relatively for stroking the blade-section 1, it being observed that forward movement of the section 2 toward the operator effects a similar stroking movement of section 1, during which movement the oar as a whole is turned on the pivot 18 for raising the blade above the water. After the desired stroke of section 1 has been attained the blade is dipped, as usual, and the section moved rearwardly from the oarsman, thereby imparting a similar movement to the blade-section 1 for propelling the boat, it being noted in this connection that during the propelling stroke the section 2 is pushed forcibly away from the oarsman, whereby a maximum propelling power is attained with a minimum output of strength, thus rendering the rowing operation less fatiguing, and consequently increasing or prolonging the staying qualities of the oarsman. It is to be observed that the oar may be readily connected with or disconnected from the boat by removing the pin 19 and swinging the pivoting element 18 upward on its pivot 17 for engagement with or disengagement from the ears 12.

From the foregoing it is apparent that I produce a simple device admirably adapted for the attainment of the ends in view, it being understood that minor changes in the details herein set forth may be resorted to without departing from the spirit of the invention.

Having thus fully described my invention, what I claim as new is—

An oar comprising a pair of sections, one of said sections having a longitudinal slot, upper and lower connecting-plates fixedly at-

tached to the other section, a pivoting-bolt entered through the slot and engaged with the plates, a pair of bearing members formed for attachment to a boat and each presenting  
5 a pair of spaced ears, a pivoting-rod fulcrumed at one end between the ears of one bearing member and adapted to seat at its other end between the ears of the other bearing member, a locking-key for holding the last-named  
10 end of the rod removably in place, a cruciform connecting-plate having its transverse

portions provided with downturned perforated ears pivotally engaged with the pivoting-rod, and pintles fixed near the ends of the longitudinal portions of the plate for pivotal 15 engagement with the respective oar-sections.

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

DANIEL P. SENGER.

Witnesses:

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