(No Model.)

B. F. BENNETT.

JOINTED BOAT OAR.

No. 336,886. Patented Mar. 2, 1886.

Fig. 1.

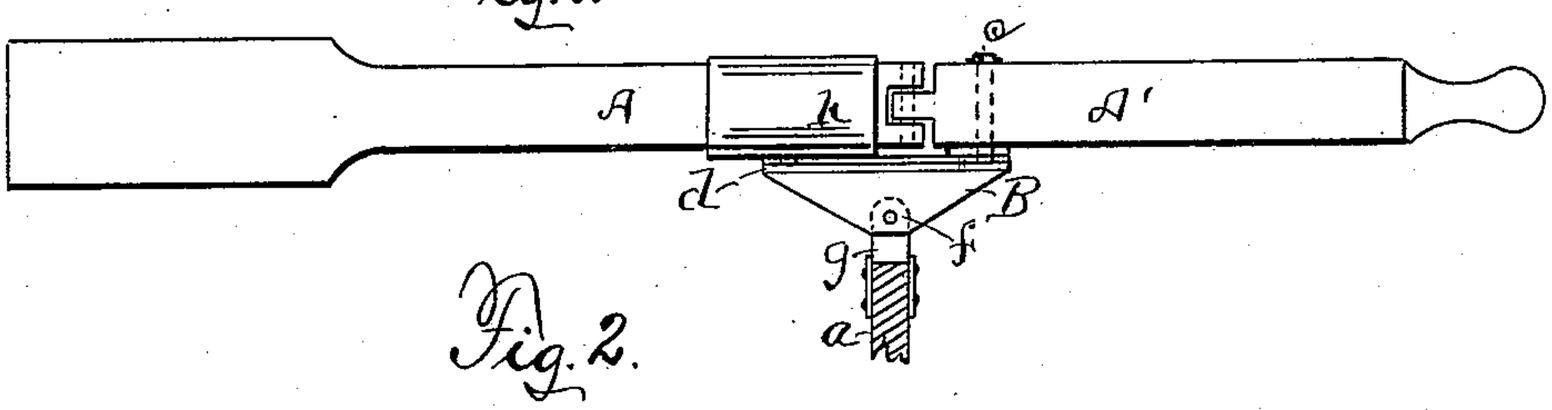


Fig. 2.

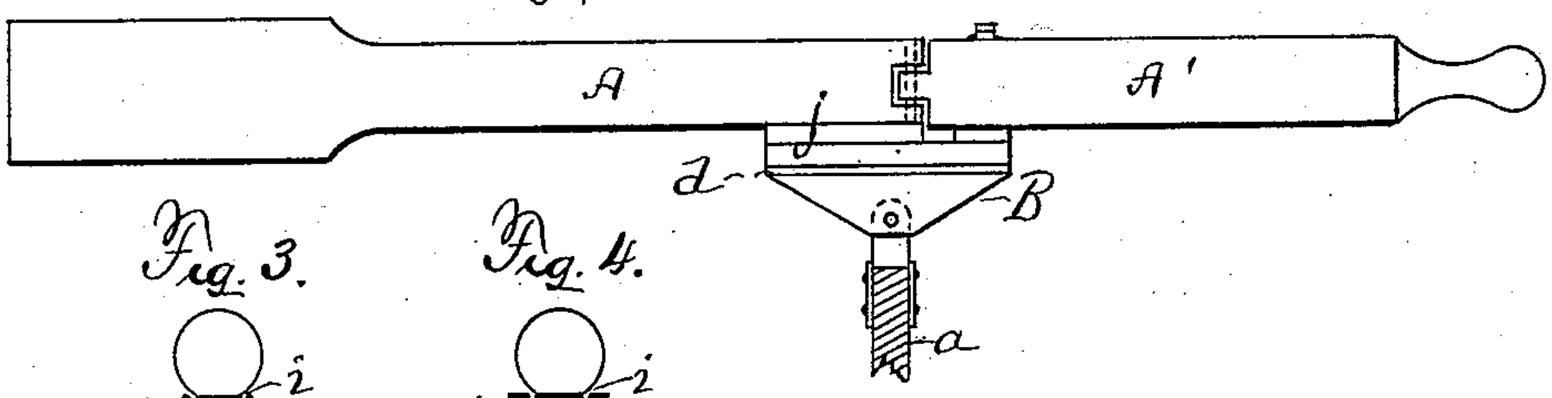
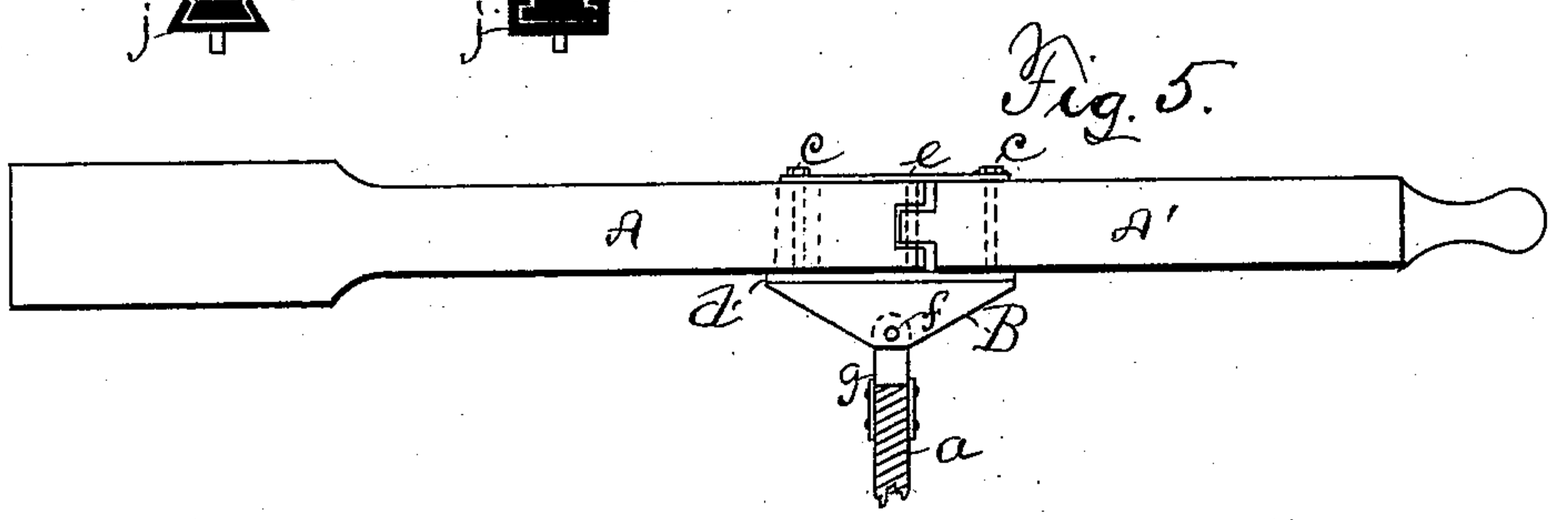


Fig. 3.

Fig. 4.

Fig. 5.



Witnesses:

D. H. Parsons.

J. R. Drake.

Benjamin F. Bennett.

Inventor, by

J. R. Drake,

Atty.

UNITED STATES PATENT OFFICE.

BENJAMIN F. BENNETT, OF LOCKPORT, NEW YORK.

JOINTED BOAT-OAR.

SPECIFICATION forming part of Letters Patent No. 336,886, dated March 2, 1886.

Application filed December 31, 1883. Serial No. 116,038. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN F. BENNETT, a citizen of the United States, residing at Lockport, in the county of Niagara and State of New York, have invented certain new and useful Improvements in Jointed Boat-Oars, of which the following is a specification, reference being had therein to the accompanying drawings.

The object of this invention is to avoid having to row backward, as is now the case, generally, with the oars in use, and allow rowers to sit facing the bow and propel a boat the same way they sit facing, so that the direction of movement can always be seen and regulated, and also get, in the handling of the oars, precisely the same movement of the body and arms as in backward rowing; and the invention consists in the combination and arrangement of parts, all as fully hereinafter explained.

In the drawings, Figure 1 is a side elevation showing one gunwale of a boat in cross-section with a jointed oar in position, the blade end playing through a short sleeve pivoted to the oscillating transverse piece attached to the gunwale; Fig. 2, same view without the sleeve, but the oar moving in a grooved plate, of which Figs. 3 and 4 are front views, given as details. Fig. 5 is a side elevation showing the same jointed oar, but without groove or sleeve, and instead a vertical oblong slot made in the blade end with a bolt attached to a plate below and running through said slot and united on the top to the other part of the oar by a tie-bar.

A A′ in all the figures represent an oar in two parts. These are jointed together at that point which in the ordinary oars in use would rest in or near the rowlocks of the gunwale *a*. A dovetailed joint, about as shown in Figs. 1, 2, 5, may be used to unite these oars, or other suitable methods.

B is a transverse beam, (the same in all the figures,) which is made to give the necessary up-and-down movement to the oars to dip and raise them from the water, and stands crosswise of the gunwale *a*, to which it is pivoted by a pin, *f*, running through lugs or ears *g*, which are fastened permanently to and across the gunwale, as shown.

In Fig. 1 the take up and let out of the blade part A of the oar is obtained by means of a short tube or sleeve, *h*, through which that end of the oar works. This sleeve is pivoted to the transverse plate *d*, as in the handle-section A′, in all the figures.

In Figs. 2, 3, 4 the take up and let out is obtained by attaching the oar-section A to a flat piece, *i*, of metal that slides in a grooved piece, *j*. This transverse plate *d* in all the figures is merely to allow the oars to be "shipped," and swings on a central pivot, and is fastened to the beam either by a pin or by a lock.

In Fig. 5 the grooves and sleeve are done away with, and an oblong vertical slot is cut in section A, (shown by dotted lines, Fig. 5,) through which the pivot-bolt *c* protrudes, and a tie-bar, *e*, is fastened across the sections A A′ to the pivot-bolt *c*, that runs down through section A′, as in all the figures. These are merely described as different ways of doing the same thing—that is, giving the let out and take up of section A of a jointed oar—substantially as described, and working in or on a transverse beam pivoted to a boat's gunwale, so as to give the proper up-and-down movement to the oars and allow the rower to face the bow as he rows, and give the act of rowing the same movements as by the present backward action.

I claim—

1. In a jointed rowing-oar, the part A, which carries the blade, and means, substantially as described, for allowing longitudinal movement of said part, said means being pivoted to the plate *d*, in combination with said plate, the beam B, and handle part A′, substantially as set forth.

2. In jointed rowing-oars, the part A, pivoted to plate *d* by means of a sleeve, *h*, which is in turn pivoted to transverse beam B by a clip or lugs, and the part A′, pivoted to transverse plate *d*, all arranged and operating substantially as specified.

3. In combination with the jointed oars A A′ and transverse beam B, the transverse plate *d*, to which the oars are pivoted, and itself pivoted in the center to the transverse beam B, and held in position by a pin or lock, substantially as and for the purpose specified.

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

BENJ. F. BENNETT.

Witnesses:

J. R. DRAKE,

T. H. PARSONS.