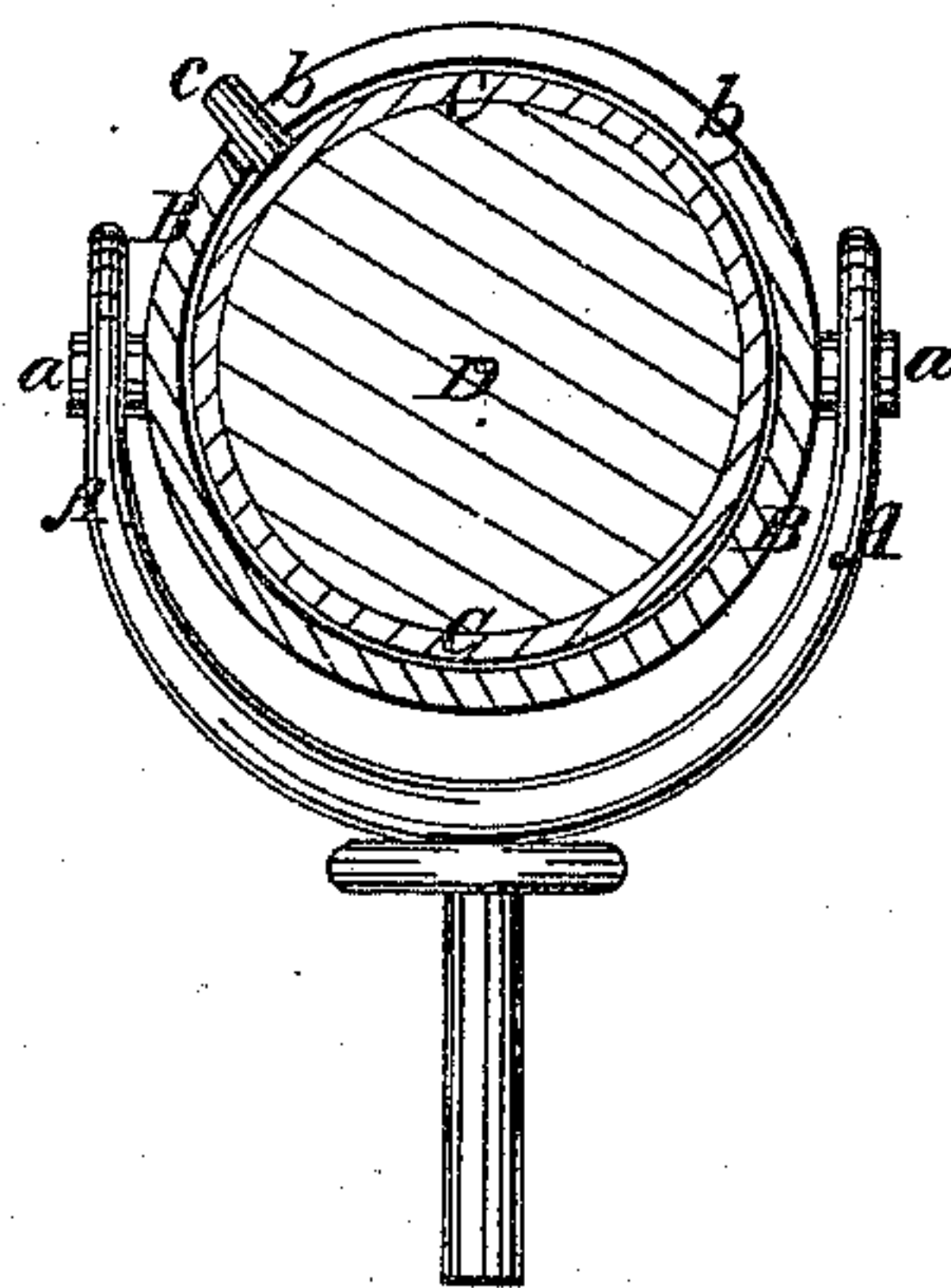


*M. Fryer*  
*Oar Lock.*

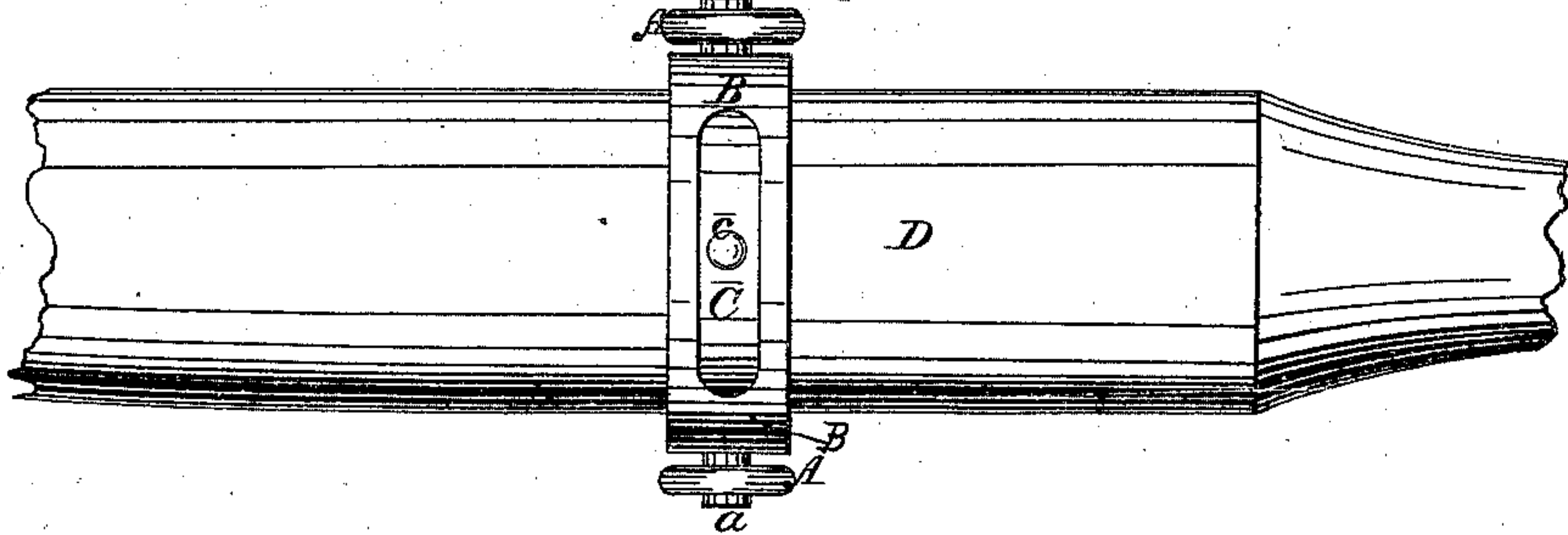
*N<sup>o</sup> 58,402*

*Patented Oct. 2, 1866.*

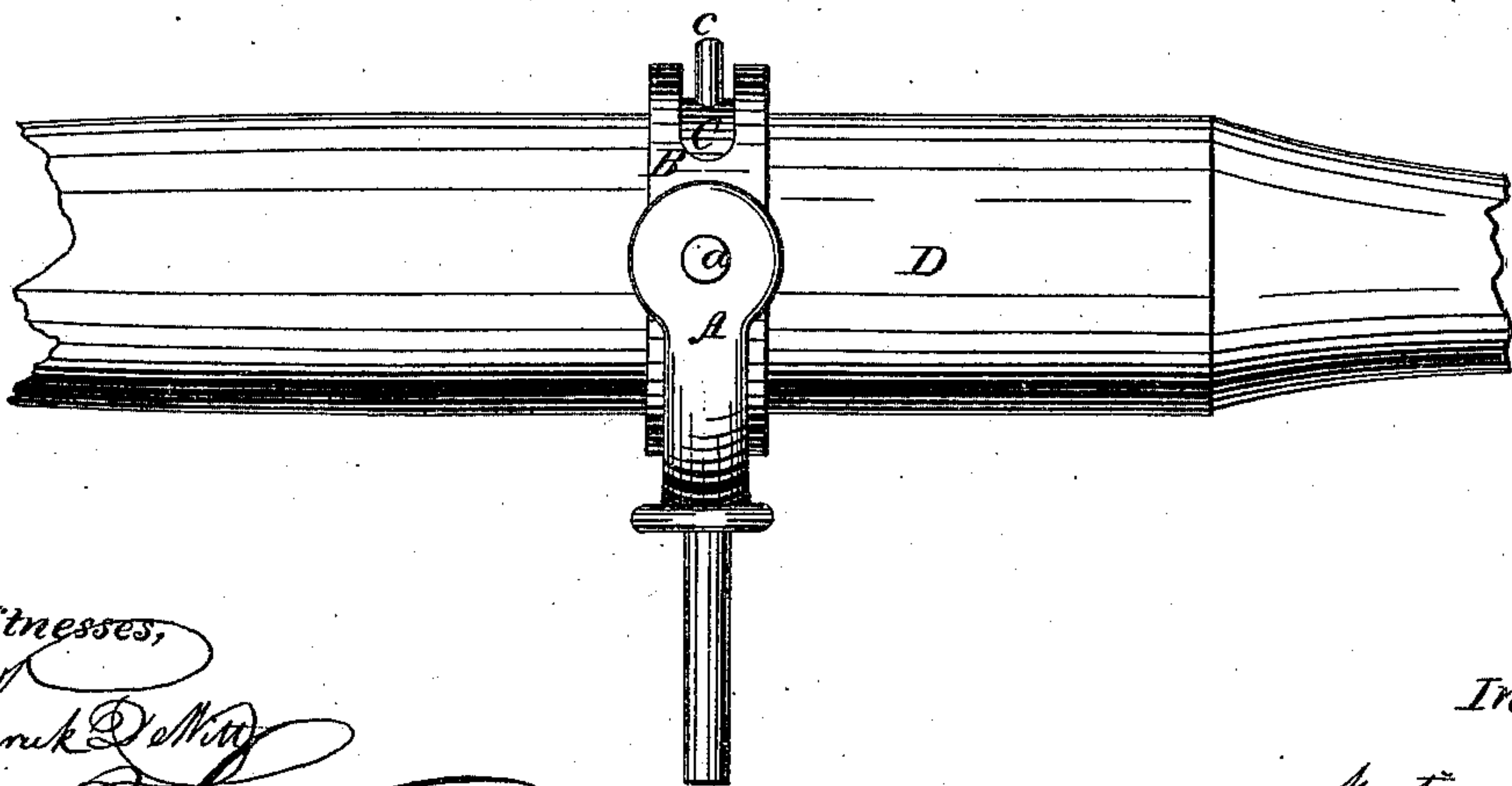
*Fig. 1.*



*a Fig. 2.*



*Fig. 3.*



*Witnesses,*  
*John Van Hook & Son*  
*James O. Jaudens*

*Inventor,*  
*Martin Fryer*

# UNITED STATES PATENT OFFICE.

MARTIN FRYER, OF GREENBUSH, NEW YORK.

## IMPROVED OAR-SWIVEL.

Specification forming part of Letters Patent No. 58,402, dated October 2, 1866.

*To all whom it may concern:*

Be it known that I, MARTIN FRYER, of Greenbush, Rensselaer county, State of New York, have invented a new and Improved Oar-Swivel; and I declare the following specification, with the drawings forming part thereof, to be a full and complete description of my invention.

Figure 1 represents the swivel as seen from either end of the oar to which it is attached. Fig. 2 is a view of the swivel with the oar attached as seen from above; Fig. 3, a view of the same in profile.

Similar letters denote the same parts of the apparatus.

The object of my invention is to make a swivel for oars which will permit and assist the oars to be operated as with the common rowlock—that is, not simply to be dipped in to and lifted from the water in vertical and swept in horizontal lines, which are the only movements that can be accomplished with the common oar-swivel, but to be turned upon its longitudinal axis, and thus be adapted to the feathering movement in rowing.

My swivel consists of three parts: the swivel proper, A, constructed precisely like the common oar-swivel, as shown in the drawings; a ring, B, swung upon A by pivots *a a*, so as to revolve freely within it; another ring, C, fitted inside of B, so as to turn around snugly but freely within it. The oar D is fitted and secured to this ring.

The ring B has cut out from its upper surface a slot, *b*, to receive a pin, *c*, which is fixed upon the inner ring, C, to regulate its movement within B. This slot is made of the proper length to allow the blade of the oar, when the pin *c* is at one extremity of the slot, to stand in

a proper position for entering the water; and when at the other extremity of the slot to have the proper oblique position in feathering the oar.

It will be seen that, as the movement of ring B upon its pivots gives the necessary rise and fall of the oar, and the movement of the ring C within B all the movement necessary for its proper entrance into and exit from the water for the feathering of the blade, the end I propose is accomplished.

These are some of the advantages in the use of this mechanism over the rowlock: It relieves the strain of the oar upon the hand at the entrance of the oar and for a considerable part of its stroke, for the pin prevents it from turning farther back than its proper position. It prevents the slipping inboard and outboard of the oar, which is well known to be a very common and annoying matter with rowlocks and a serious impediment in match rowing. It so regulates the entrance and exit of the oar that it cannot enter or leave the water at angles disadvantageous to the proper movements of the oar. It prevents loss of work, jar, and irregularity of movement occasioned by the change of fulcrum for the oar from the front to the back horn of the rowlock upon every change of stroke.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination of the swivel A, with the ring B and its slot *b*, and the ring C, with its pin *c*, operating together in the manner and for the purpose described.

MARTIN FRYER.

Witnesses:

RICH. VARICK DEWITT,  
JAMES B. SANDERS.