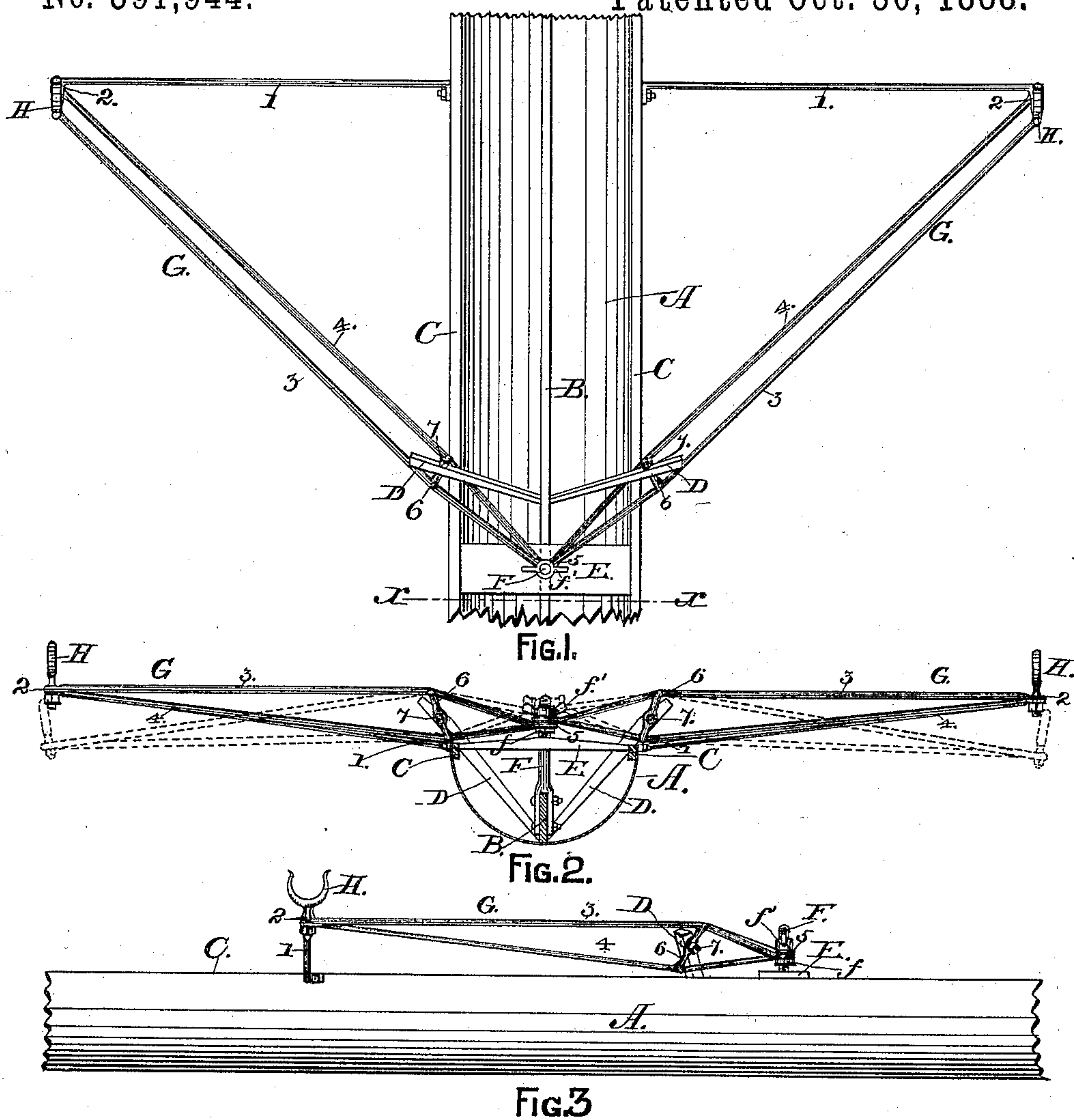


(No Model.)

H. E. CAMPBELL.  
OUTRIGGER FOR ROW BOATS.

No. 391,944.

Patented Oct. 30, 1888.



WITNESSES:  
*H. V. Scattergood.*  
*S. B. Brewer,*

INVENTOR:  
HARRY E. CAMPBELL.  
by *William M. Low,*  
Attorney.



# UNITED STATES PATENT OFFICE.

HARRY E. CAMPBELL, OF ALBANY, NEW YORK, ASSIGNOR OF ONE-HALF  
TO ROBERT C. BLACKALL, OF SAME PLACE.

## OUTRIGGER FOR ROW-BOATS.

SPECIFICATION forming part of Letters Patent No. 391,944, dated October 30, 1888.

Application filed May 20, 1887. Serial No. 238,862. (No model.)

*To all whom it may concern:*

Be it known that I, HARRY E. CAMPBELL, of the city and county of Albany and State of New York, have invented new and useful Improvements in Outriggers for Row-Boats, of which the following is a specification.

My invention relates to improvements in outriggers for holding the rowlocks of row-boats of the class that are especially designed for racing purposes; and the objects of my invention are to give greater strength and stability to the outriggers without adding materially to the weight, and to render them adjustable, so that the rowlocks at the outer ends of said outriggers can be either raised or depressed, as occasion may require. These objects I attain by the mechanism illustrated in the accompanying drawings, which is herein referred to and forms part of this specification, and in which—

Figure 1 is a plan view of part of a midship-section of a racing boat or "shell" provided with my invention; Fig. 2, a transverse section at the line X X, and Fig. 3 a side elevation of the same.

As represented in the drawings, A is the hull of the boat; B, the keelson; C, the gunwales, and D diagonal stanchions which connect the keelson and gunwales, and which extend from each side of the keelson to points above and outside of the gunwales, as shown in Fig. 2; E, a cross-tie between the gunwales C, and F a vertical screw-stud secured to the keelson B and passing upward through the cross-tie E; G, the outriggers, each of which consist of the following parts: a light metallic bar, 1, having its inner end secured to the side of the boat, and having at its outer end a seat, 2, to which the rowlock H is fastened, said bar having sufficient flexibility to permit the adjustment of the rowlocks, as hereinafter described, and a trussed brace consisting of the light rods or tubes 3 and 4, which are connected together to form an eye, 5, at the inner end of said trussed brace, and which are held apart near said inner end by a strut, 6, which is pivoted, as at 7, to the stanchion D in such manner that said trussed brace can receive a

slight vibratory motion on said pivotal center. The outer ends of the rods 3 and 4 are secured to the under side of the seat 2, and the eye 5 engages on the stud F, the eye of one of the trussed braces being placed directly above the other on said stud. A nut, *f*, is fitted to screw onto said stud, and when adjusted where the eyes 5 will be held up thereby said nut forms a support for the inner ends of both trussed braces. A thumb-nut, *f'*, is fitted to screw onto the screw-stud F above the nut *f* in such manner that both eyes 5 will be secured between said thumb-nut and the lower nut, *f*, so as to sustain the outer ends of said outriggers in a most effective manner at any point to which they may be adjusted.

The manner of adjusting the height of the outer ends of said outriggers is as follows: Assuming that the outriggers are in the position shown by the full lines of Fig. 2 and it is desirable to depress the outer ends of them, the thumb-nut *f'* is first slacked off and the lower nut, *f*, is correspondingly raised to elevate the inner ends of the trussed braces. By so doing the latter are tilted on their pivotal centers 7 to cause their outer ends to move downward, as indicated by dotted lines in Fig. 2. When the required adjustment has been obtained, the thumb-nut *f'* is screwed down to bind the eyes 5, and thereby the outriggers G will be securely held in their new position. To raise the outer ends of the outriggers the operation just described must be performed in reversed order.

I claim as my invention—

That improvement in outriggers for row-boats which consists in supporting the outer ends of said outriggers on vertically-vibratile arms that are pivoted to stationary points of said boat, the inner ends of said vibratile arms engaging on a central stud located within the boat and provided with adjusting-nuts, as and for the purpose herein specified.

HARRY E. CAMPBELL.

Witnesses:

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