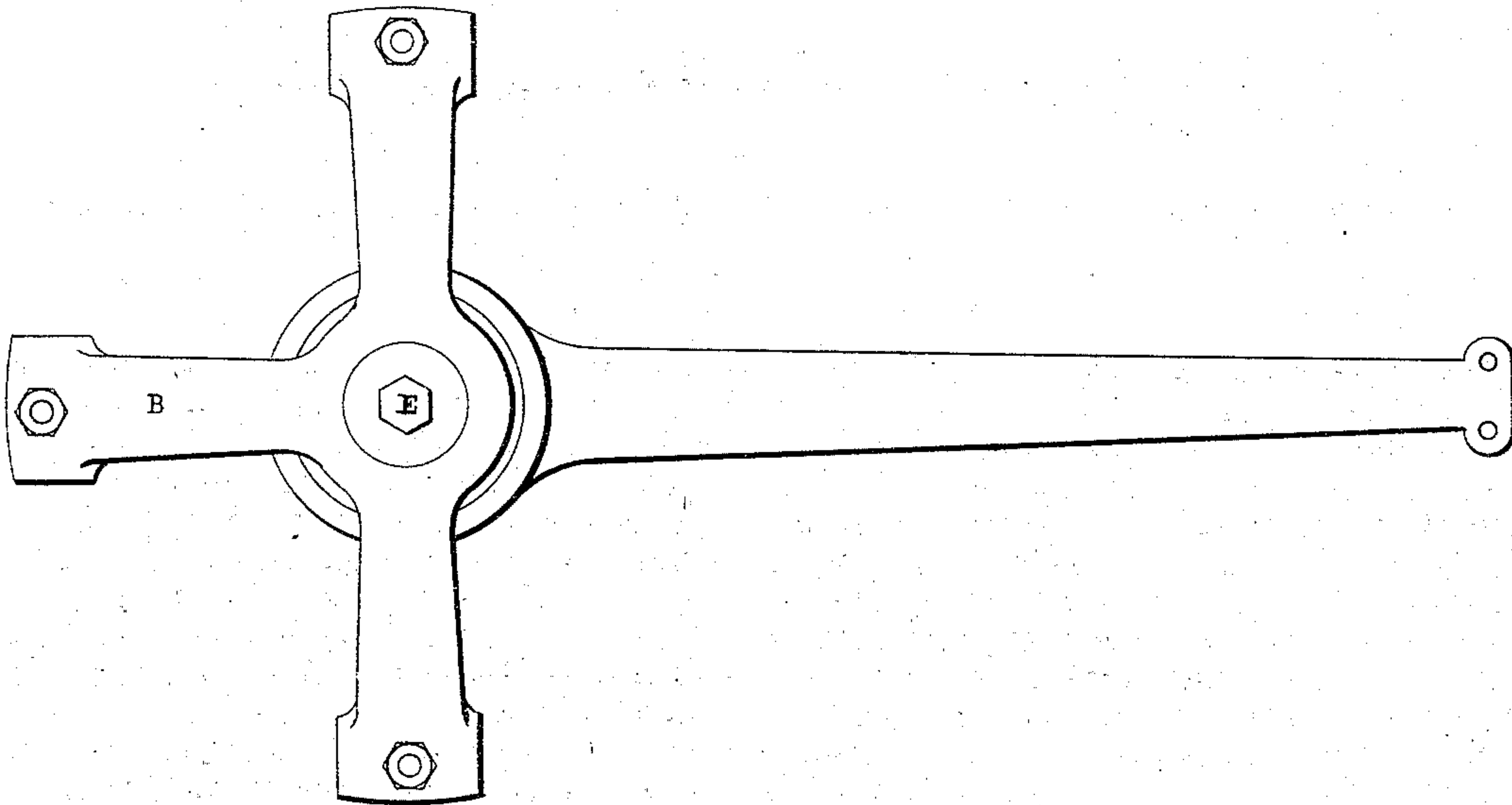


J. P. FOOTE.  
Braces for Rudders.

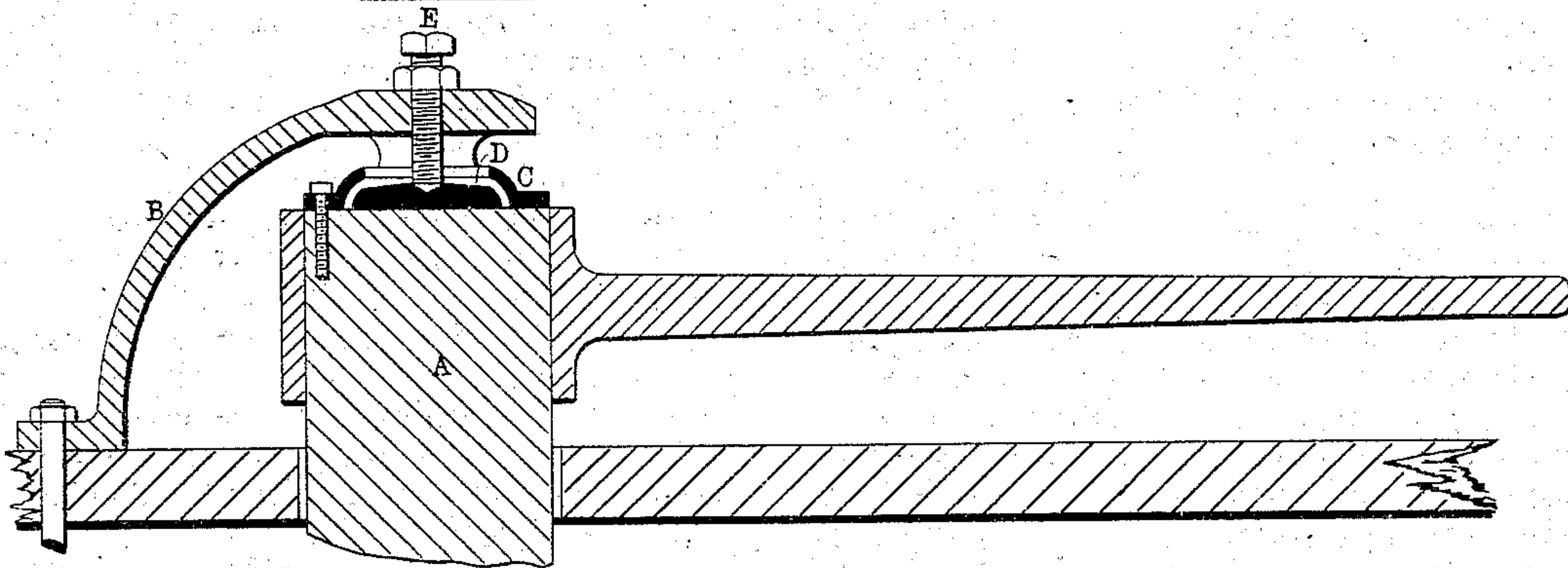
No. 153,817

Patented Aug. 4, 1874.

— FIG - II - —



— FIG - I - —



— WITNESSES —

*V. C. Clayton*  
*H. A. Daniels*

— INVENTOR —

*John P. Foote*  
*by G. H. M. J. Howard*  
*Attorneys.*

# UNITED STATES PATENT OFFICE.

JOHN P. FOOTE, OF BALTIMORE, MARYLAND, ASSIGNOR OF ONE-HALF HIS  
RIGHT TO AUGUST DUNNEMANN, OF CHARLESTON, S. C.

## IMPROVEMENT IN BRACES FOR RUDDERS.

Specification forming part of Letters Patent No. **153,817**, dated August 4, 1874; application filed  
June 2, 1874.

*To all whom it may concern:*

Be it known that I, JOHN P. FOOTE, of the city of Baltimore and State of Maryland, have invented certain Improvements in Rudder-Braces, of which the following is a specification; and I do hereby declare that in the same is contained a full, clear, and exact description of my said invention, reference being had to the accompanying drawing and to the letters of reference marked thereon.

My invention relates to certain improvements in the mode of securing rudders to prevent their becoming unshipped in case of disarrangement of the ordinary fastening devices.

In the description of my invention which follows, due reference must be had to the accompanying drawing forming a part of this specification, and in which—

Figure 1 is a vertical section of the upper portion of the rudder-stock, having my improvements attached thereto; and Fig. 2, a plan of the same.

Similar letters of reference indicate similar parts of the invention in both the figures.

A is the portion of the rudder-stock projecting above the deck of the vessel. B is a frame, secured to the deck, and of such form as to offer no impediment to the vibrating movement of the tiller. To the rudder-head is fastened a flange, C, having an annular projection on the upper side. The central opening in the flange C is tapering in form, or smaller at

the upper end than at the rudder-head, to prevent the plate D, which is inserted therein, from being removed while the flange is in place. The plate D is not fastened to either the rudder-head or to the flange, but merely rests upon the rudder-head, and, being of a smaller diameter than the interior of the flange, is allowed considerable lateral motion independently of it. E is a set-screw, which projects downward through the frame B, the point of which screw bears upon the plate D, or is in such close proximity thereto as to prevent an excessive or dangerous vertical movement of the rudder-stock.

The difference in diameters of the plate D and the interior of the flange C allows the rudder to sustain shocks, and the stock to be moved laterally without communicating any motion or placing any strain upon the set-screw E and the frame B.

Having thus described my invention, what I claim as new, and wish to secure by Letters Patent of the United States, is—

The combination of the frame B, flange C, plate D, and set-screw E, with the rudder-stock A, substantially as specified.

In testimony whereof I have hereunto subscribed my name in the city of Baltimore, this 25th day of May, A. D. 1874.

JOHN P. FOOTE.

Witnesses:

WM. T. HOWARD,  
JNO. T. MADDOX.