

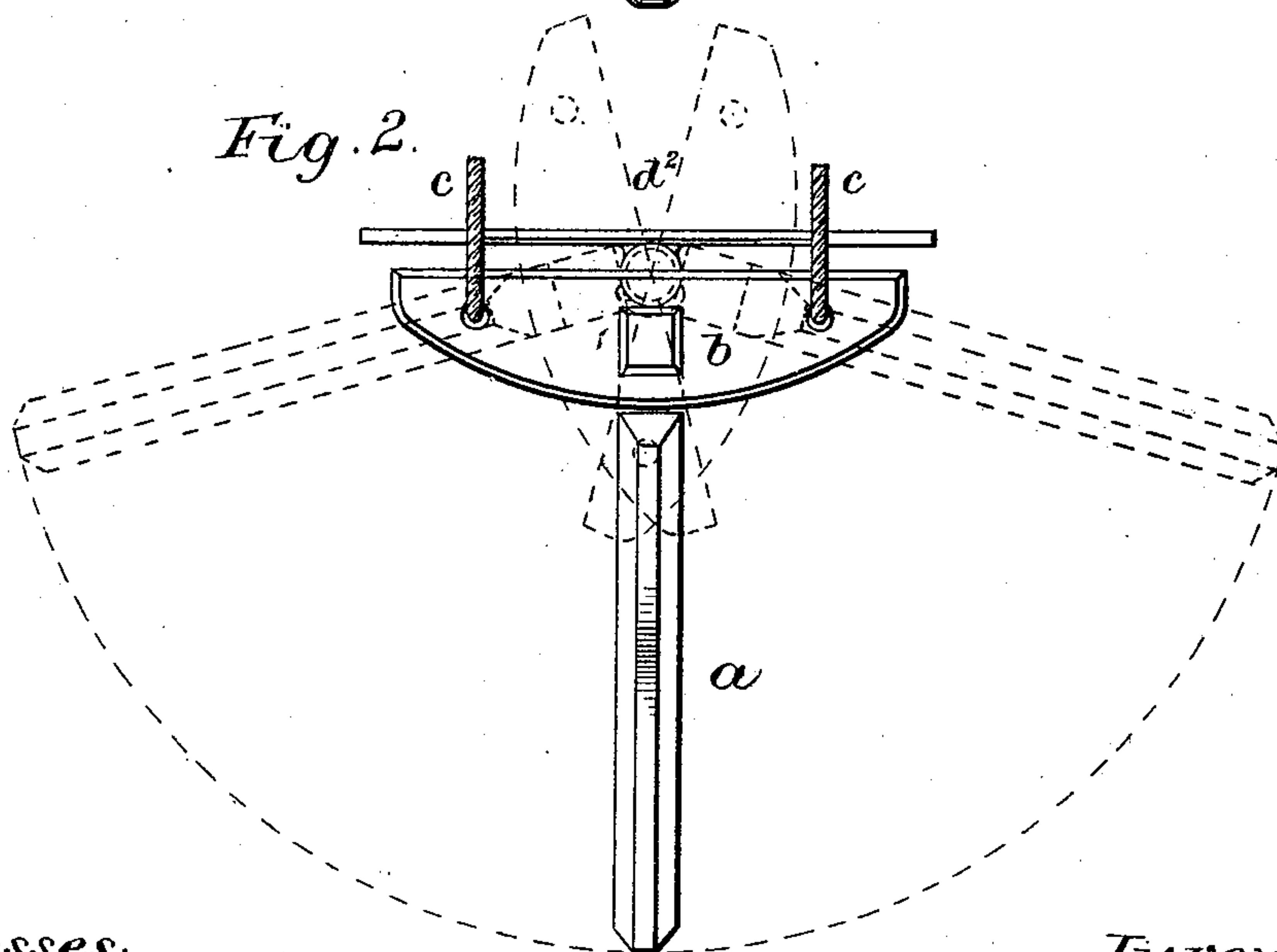
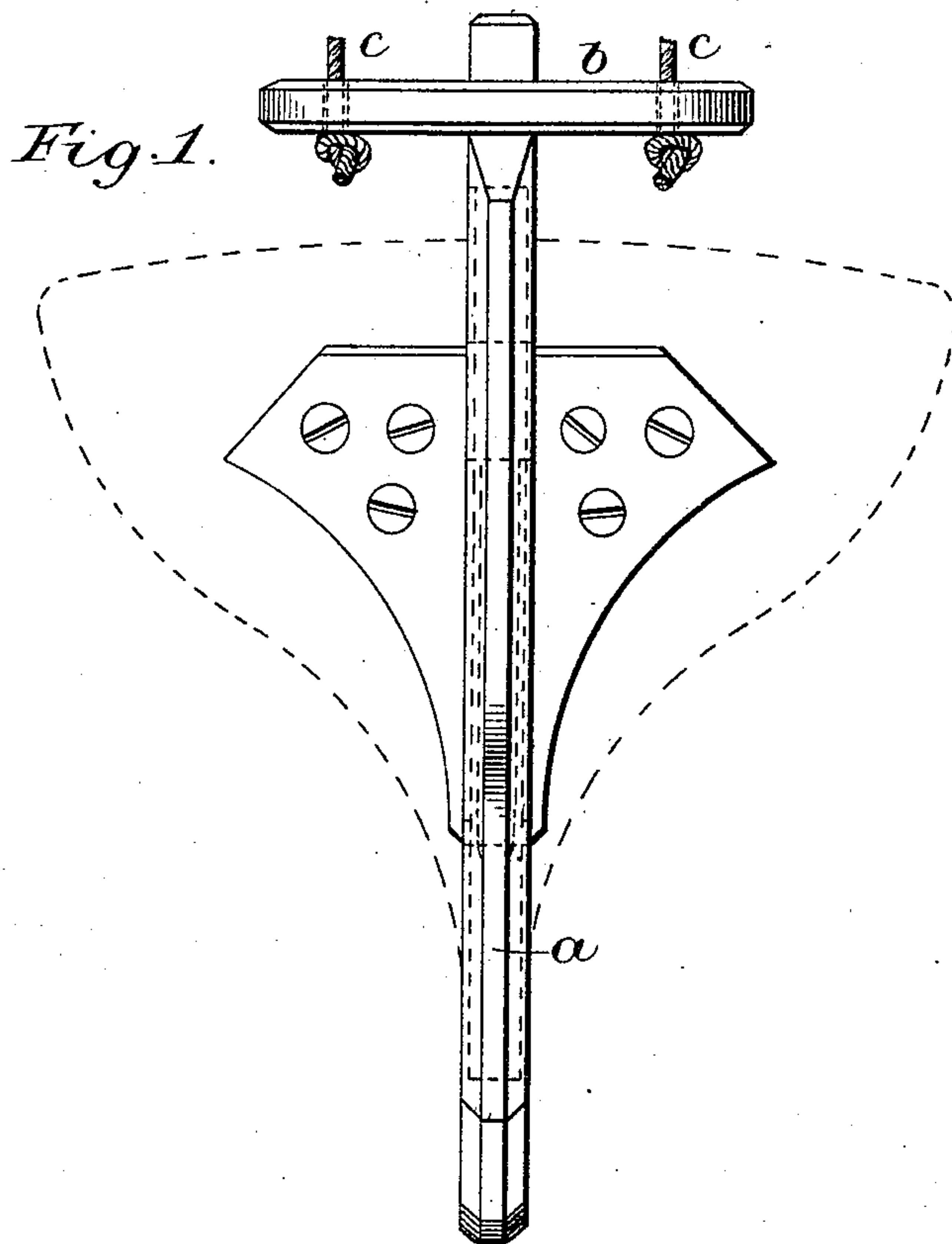
(No Model.)

2 Sheets—Sheet 1.

W. JOHNSON.  
RUDDER ATTACHMENT.

No. 313,339.

Patented Mar. 3, 1885.



Witnesses:

*Alex. Scott*

*D. W. Eddlin*

Inventor:

*Wm. Johnson*

*Munn & Co.*

(No Model.)

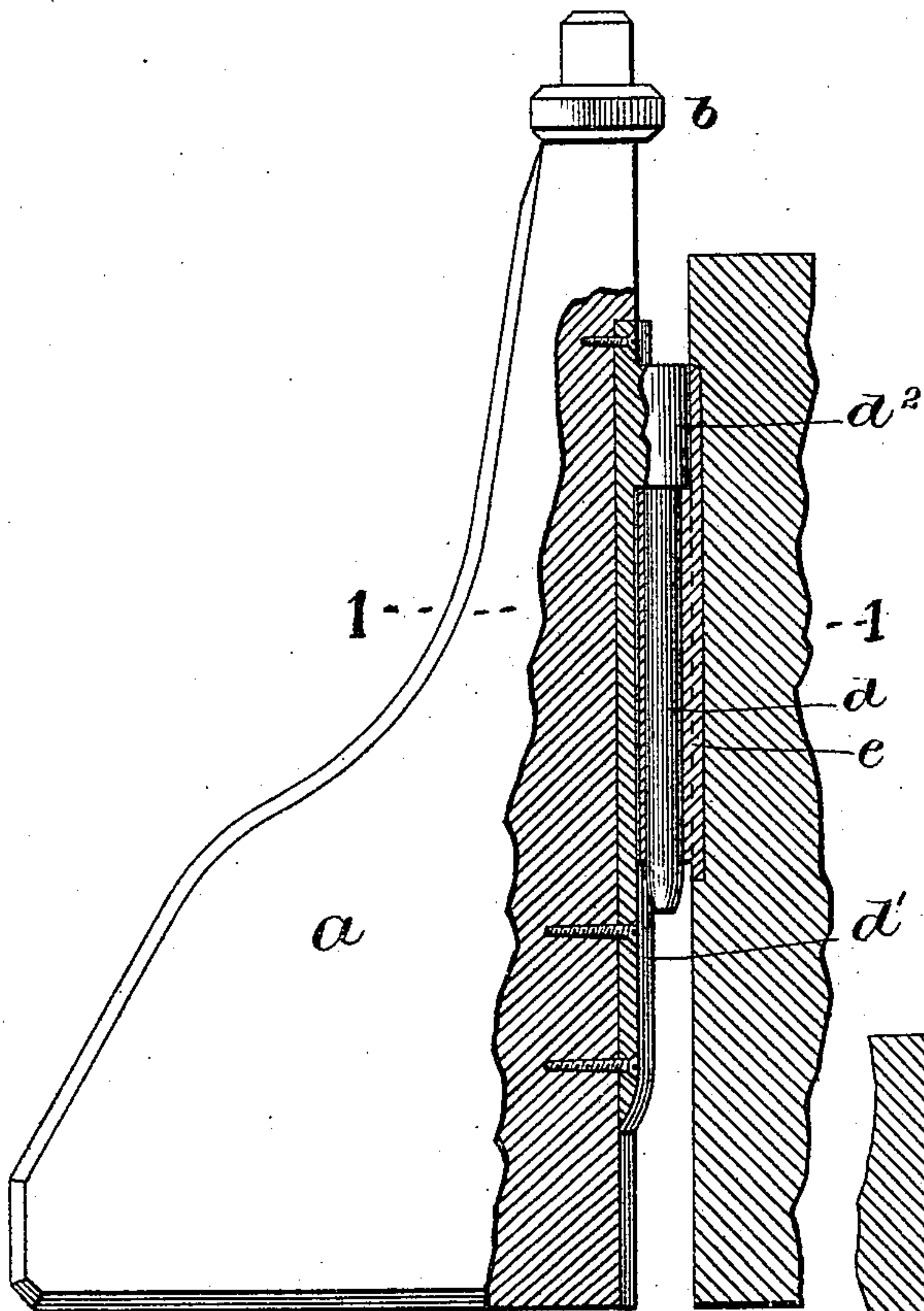
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W. JOHNSON.  
RUDDER ATTACHMENT.

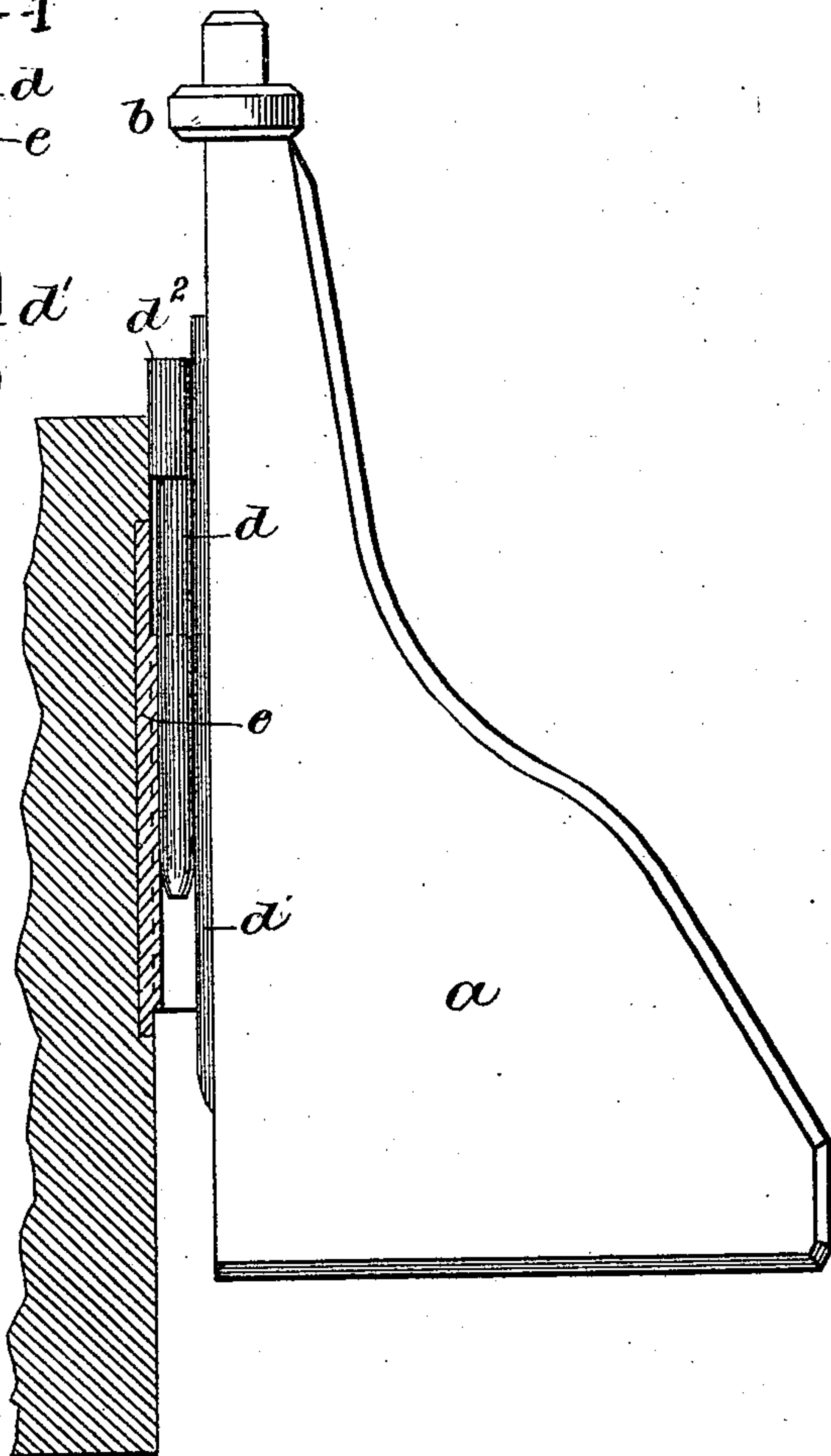
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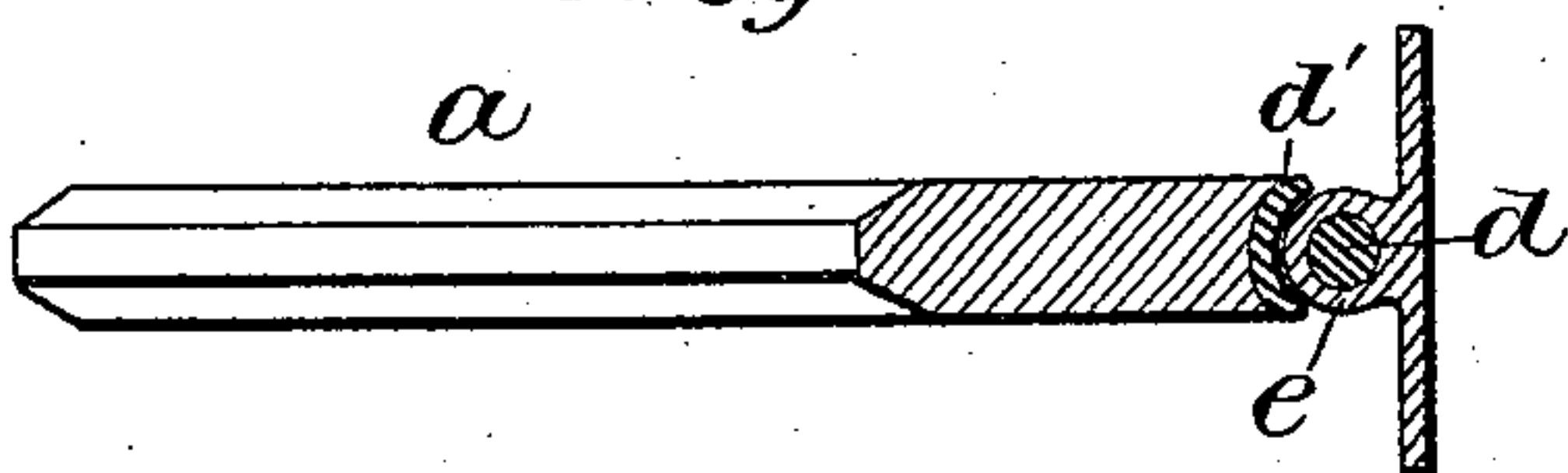
*Fig. 3.*



*Fig. 4.*



*Fig. 5.*



Witnesses  
*Alfred Scott*  
*D. W. Edclin*

Inventor.  
*Wm Johnson*  
*Manu J. L.*



# UNITED STATES PATENT OFFICE.

WILLIAM JOHNSON, OF EAST MOULSEY, COUNTY OF SURREY, ENGLAND.

## RUDDER ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 313,339, dated March 3, 1885.

Application filed September 24, 1884. (No model.) Patented in England June 26, 1884, No. 9,445.

*To all whom it may concern:*

Be it known that I, WILLIAM JOHNSON, of East Moulsey, in the county of Surrey, England, watch-maker, have invented a new and useful Improvement in Rudder Attachments, of which the following is a full, clear, and exact description, and upon which Letters Patent were granted to me in England June 26, 1884, the same being numbered 9,445.

The object of my invention is to furnish an improved rudder attachment for torpedo-boats, rowing-boats, and other small craft, which, while securely holding the rudder in position, will leave it free to rise without becoming absolutely unshipped in the event of the rudder coming in contact with the ground, thereby avoiding damage to or loss of the rudder and risk of capsizing the boat. The attachment of my invention is further characterized by the facility with which it can be shipped and unshipped, these operations, with the ordinary attachment, being sometimes a matter of some difficulty, more especially in the dark, and when the rudder is hard over.

The attachment of my invention consists of a single long pintle which projects from the forward edge of the rudder, and is received in a corresponding socket secured to the stern-post of the boat, the said pintle having a head or enlargement at its upper end, which rests in a countersink in the upper end of the socket. The pintle is secured to or formed in one with a metal plate or strip which is screwed or otherwise attached to the rudder, this strip being preferably grooved vertically, to correspond with the external surface of the socket-piece, with which it is in contact, there being sufficient clearance between the strip or plate and the pintle to enable the latter to be inserted in the socket.

The invention is illustrated in the accompanying drawings, in which Figure 1 is an end view of an ordinary rowing-boat with the rudder in position, and Fig. 2 is a corresponding plan. Figs. 3 and 4 are vertical sections of the attachment, the rudder in Fig. 3 being shown in position, while in Fig. 4 it is partly

raised off the boat. Fig. 5 is a horizontal section on line 1 1, Fig. 3.

*a* is the rudder, *b* the yoke, and *c c* the yoke or rudder lines, all as usual. *d* is the pintle, formed in one with or rigidly attached to the curved or half-round plate or strip *d'*, which is secured to the inner edge of the rudder. *e* is the socket-piece, which is attached to the stern-post of the boat. The pintle has a circular head or enlargement, *d'*, at its upper part, which is received in a countersink in the upper end of the socket *e*. The pintle extends downward, and is fitted to pivot freely in the socket, which, being of approximately the same length as the pintle, affords a long bearing for the latter, while the contact of the socket with the grooved plate *d'* serves to relieve the pintle from strain.

By this construction the rudder can be readily unshipped, even when it is hard over, (as indicated in dotted lines in Fig. 2,) and if it should happen to come into contact with an obstacle it will lift, as indicated in Fig. 4, without becoming absolutely detached or being liable to be broken or damaged.

Having now particularly described and ascertained the nature of the said invention and in what manner the same is to be performed, I declare that what I claim is—

In a rudder attachment, the concaved plate formed with a headed pintle, said pintle being disposed, from its head downward, intact with the concaved surface of said plate, in combination with the plate having a socket which receives said pintle, and upon the upper edge of which socket rests the head of said pintle, said socket-plate having an upper and lower extension to receive means to effect the fastening of the same in place, substantially as and for the purpose set forth.

The foregoing specification of my improvement in rudder attachments signed by me this 2d day of September, 1884.

WILLIAM JOHNSON.

Witnesses:

G. W. WESTLEY,

HERBERT E. DALE.

Both of 17 Gracechurch Street, London, E. C.