

No. 661,100.

Patented Nov. 6, 1900.

C. E. DELANOY.
SHIP'S DRAG.

(Application filed Jan. 11, 1900.)

(No Model.)

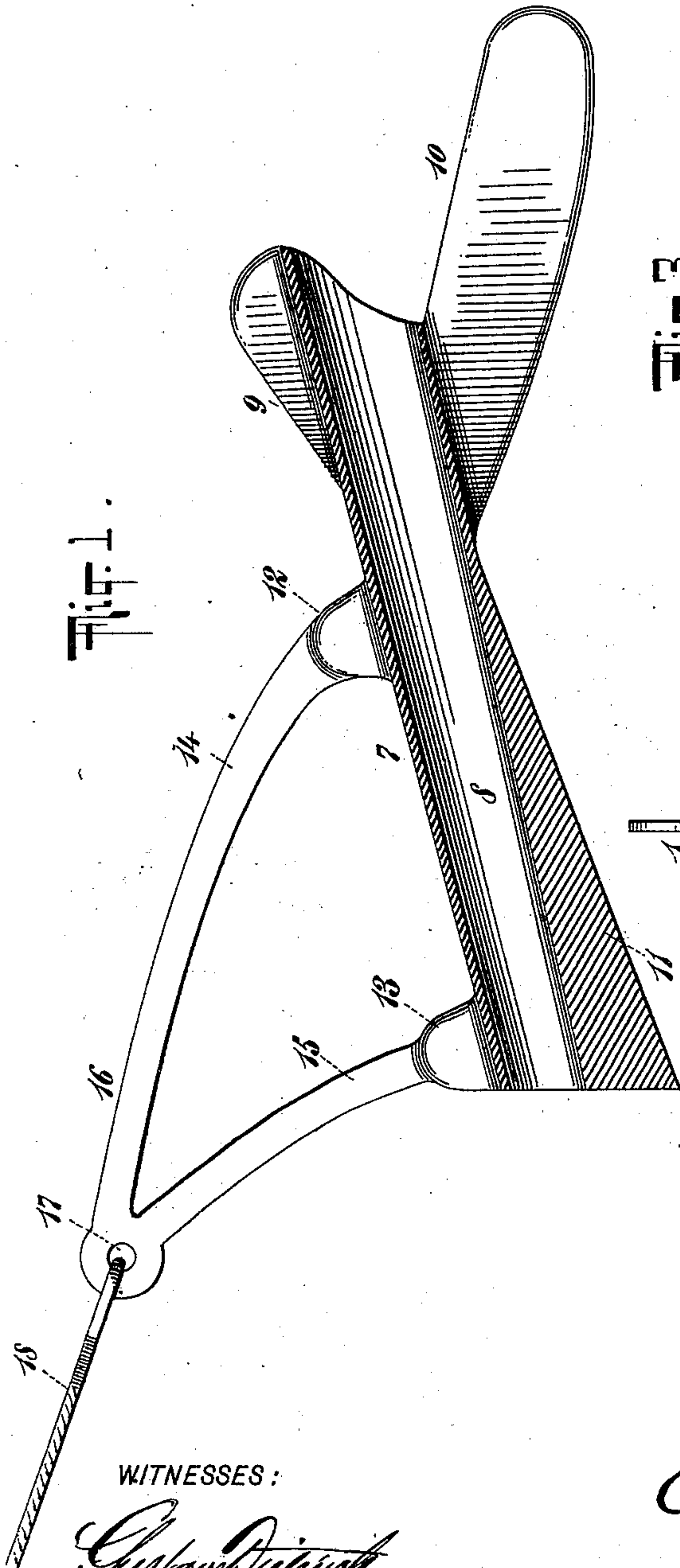


Fig. 1.

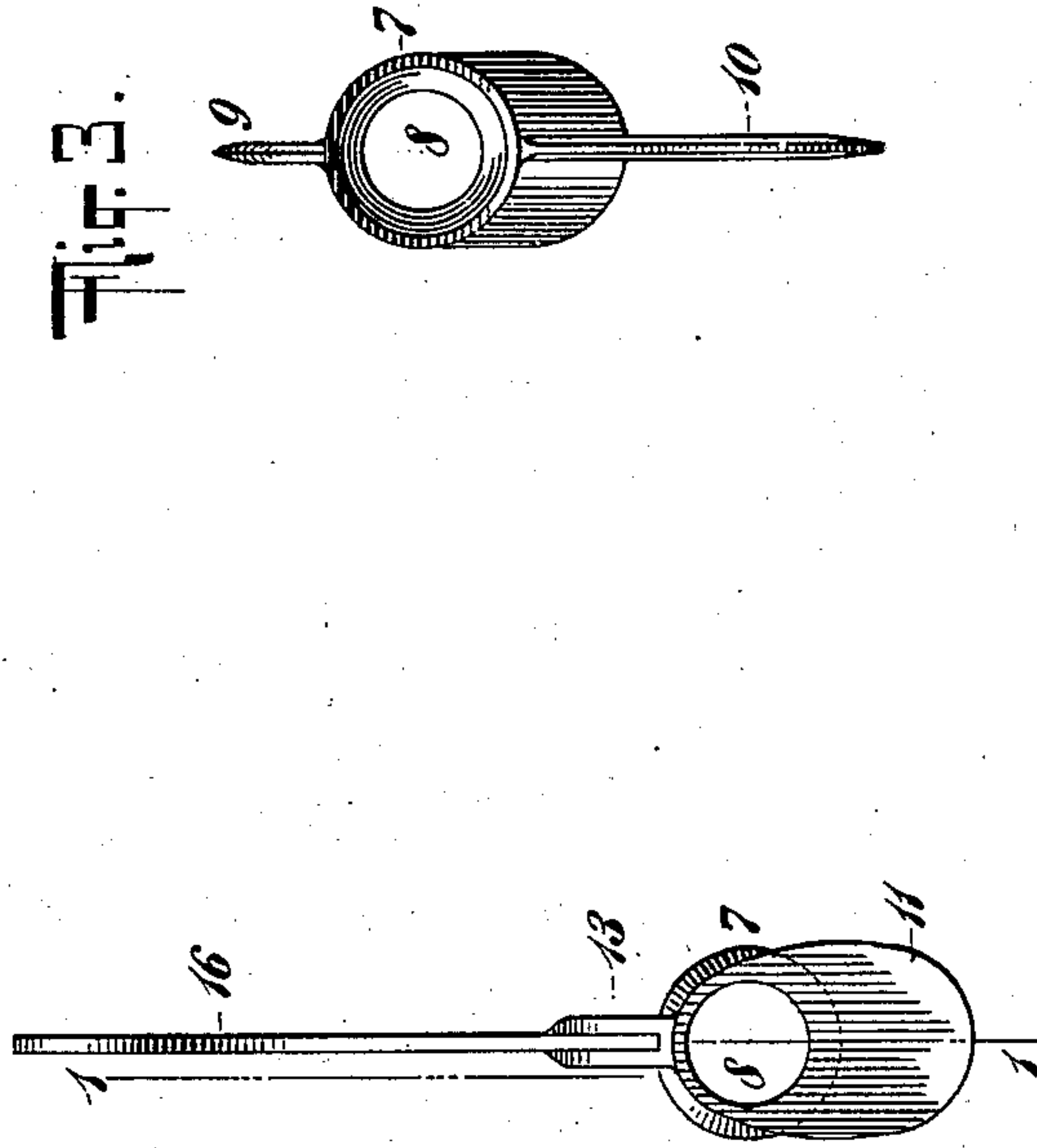


Fig. 2.

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UNITED STATES PATENT OFFICE.

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SHIP'S DRAG.

SPECIFICATION forming part of Letters Patent No. 661,100, dated November 6, 1900.

Application filed January 11, 1900. Serial No. 1,031. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. DELANOY, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Ships' Logs, of which the following is a specification.

The invention relates to improvements in ships' logs for use in connection with speed recording or registering devices located on shipboard; and said invention consists in the novel features hereinafter described and claimed.

The object of my invention is to produce a log which may be maintained below the surface of the water and offer proper resistance for actuating the speed recording or registering device on shipboard.

The nature of the invention will be fully understood from the detailed description hereinafter presented, reference being had to the accompanying drawings, in which—

Figure 1 is a vertical longitudinal section through a log constructed in accordance with and embodying the invention, the section being on the dotted line 1 1 of Fig. 2. Fig. 2 is a front end elevation of same, and Fig. 3 is a rear end elevation of same.

In the drawings, 7 denotes the body of the log, which body is of elongated form and contains the longitudinal opening 8 through it, said opening having walls which gradually diverge from the front or entering end to the rear or outlet end of said opening. The opening 8 through the body 7 is therefore smaller at the front end of the log than at the rear end of the log. The rear portion of the log will preferably be provided with the fins or blades 9 10, of suitable outline and disposition for guiding the log through the water. The lower front portion of the log is of solid metal, as shown, and this solid portion (numbered 11) tapers upward and rearward toward the fin or blade 10 and terminates at a point substantially below the lug 12, hereinafter described, said portion 11 thus forming in longitudinal section at the lower side of the body 7 a wedge-shaped outline, the larger end of the wedge outline facing frontward.

The upper side of the body 7 is formed with the lugs 12 13, to which are secured the arms 14 15 of the bracket 16, said arms 14 15 con-

verging toward and merging into one another at their upper ends, where a suitable eye 17 is formed to receive the end of the cable 18, by which the log is drawn through the water and which on shipboard will be connected to a suitable registering or recording device in a well-known manner. The pitch of the bracket 16 is such that under the pulling action of the cable 18 the log will be caused to assume when in use an inclined position, as indicated in Fig. 1, and to remain below the surface of the water. Experience has demonstrated that the log illustrated may be substantially uniformly maintained at a depth of about two feet below the surface of the water when the cable 18 is about sixty-five feet long and extended from the registering or recording device located at a height of three feet above the surface of the water upon the deck of a yacht moving at three knots and upward an hour. It is my purpose that the bracket 16 shall always maintain the body 7 when the log is in use in an inclined position, with the front end of the log at a lower elevation than the rear end of the same. The body 7 is weighted, as shown, at its lower side to aid in maintaining the log in an inclined position, and the weighted section 11 of the body 7 extends rearward to about two-thirds the length of said body in order not to create too great a dip at the front end of the log and to enable the log to be properly maintained during its movement through the water. The blades 9 and 10 may be varied in outline in many respects, and hence the invention is not limited to the special blades illustrated.

The opening 8 through the body of the log is of importance, since thereby with a log of small size I am enabled to attain great efficiency and reliability of operation.

The outline of the bracket 16 and the fact that its arm 14 joins the lug 12 at a point to the rear of a central vertical line through the log and to the rear of the center of weight of the log result in the log being compelled when under the pull of the cable 18 to take the inclined position described above, and the more positive the pull on the cable the more assuredly is the log maintained in its inclined position, the line of force causing the front end of the log to remain downward as dis-

tinguished from rising to the surface of the water.

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

5 1. The ship's log comprising the elongated body having a longitudinal opening through it and weighted at its front end to cause said end to materially overbalance the rear end of
10 of said body to receive at its front end the cable, said bracket being at a pitch to compel said body to assume when in use an inclined position with its front end on a lower level than its rear end; substantially as set
15 forth.

2. The ship's log comprising the elongated body having the longitudinal opening through it, and a bracket at the upper side of said body to receive at its front end the cable,
20 said opening gradually increasing in diameter toward its rear end, and said bracket be-

ing at a pitch to compel the said body to assume when in use an inclined position with its front end on a lower level than its rear end; substantially as set forth. 25

3. The ship's log comprising the elongated body having the longitudinal opening through it, the fins or blades, and the weighted section at its lower side and gradually decreasing in thickness toward the rear end of said body, 30 said section extending throughout about two-thirds of the length of said body, and said opening being of smaller diameter at its front end than at its rear end; substantially as set forth. 35

Signed at New York, in the county of New York and State of New York, this 8th day of January, A. D. 1900.

CHARLES E. DELANOY.

Witnesses:

CHAS. C. GILL,
GUNDER GUNDERSON.