

No. 636,699.

Patented Nov. 7, 1899.

C. W. SHAW.
TOWING INDICATOR.

(Application filed July 17, 1899.)

2 Sheets—Sheet 1.

(No Model.)

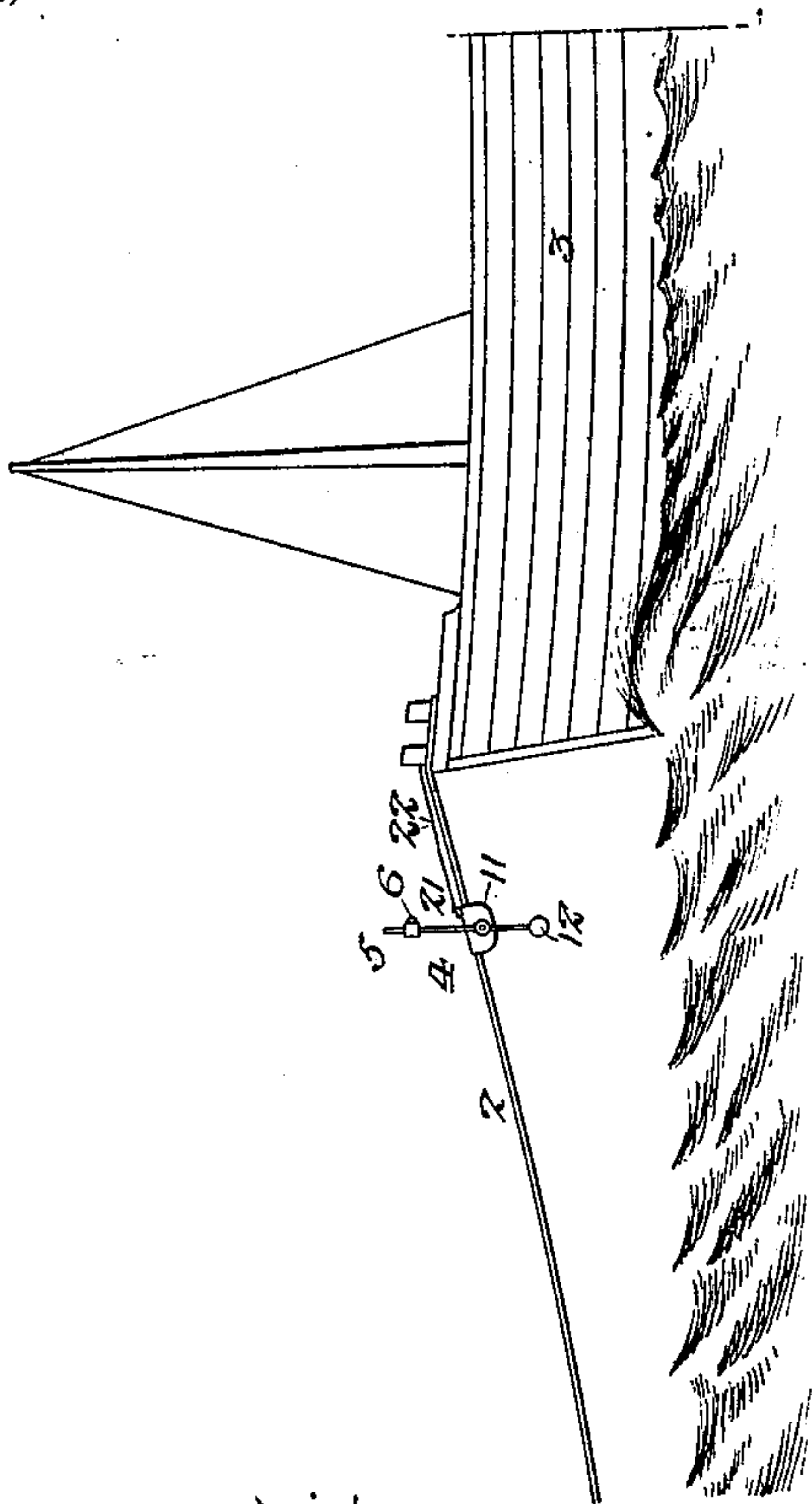


Fig. 1.

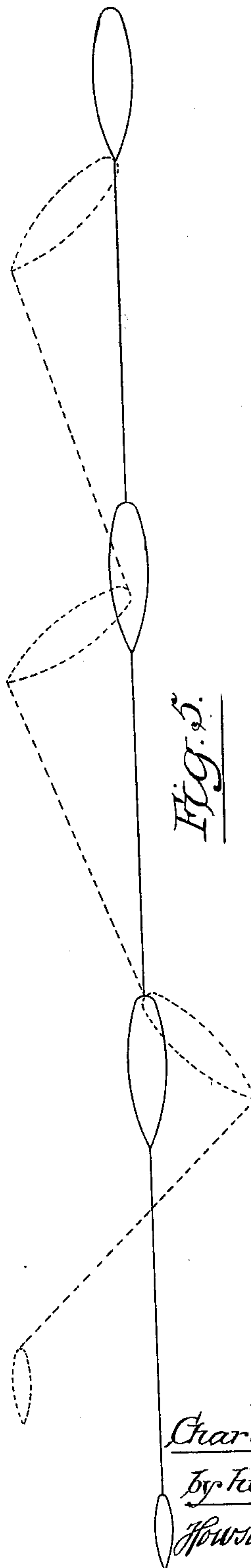
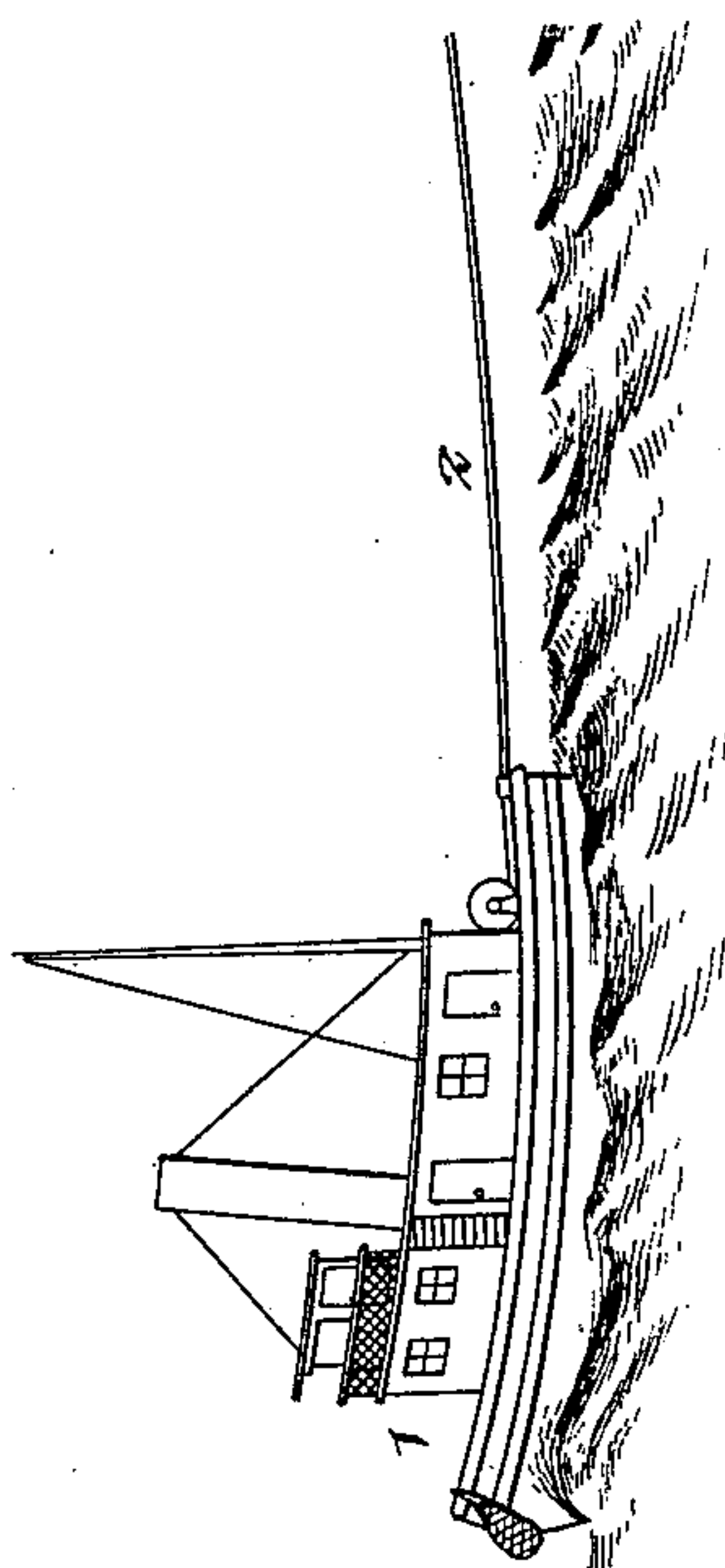


Fig. 3.

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Inventor:
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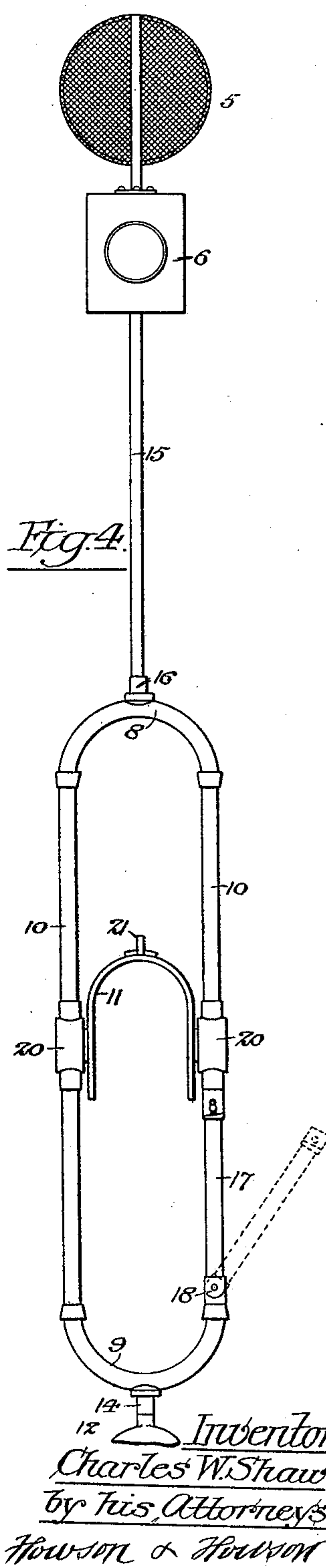
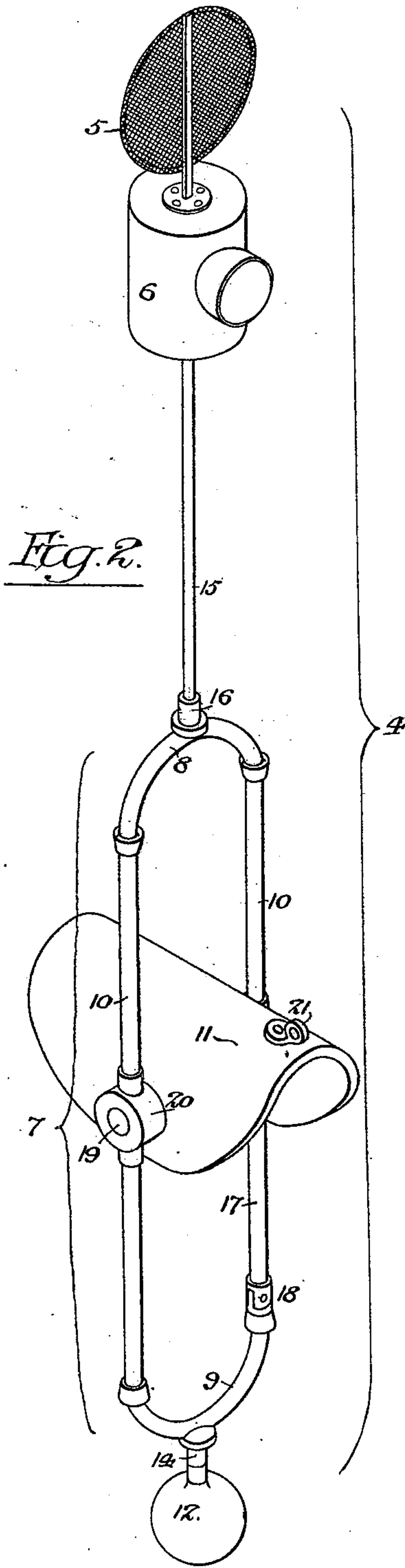
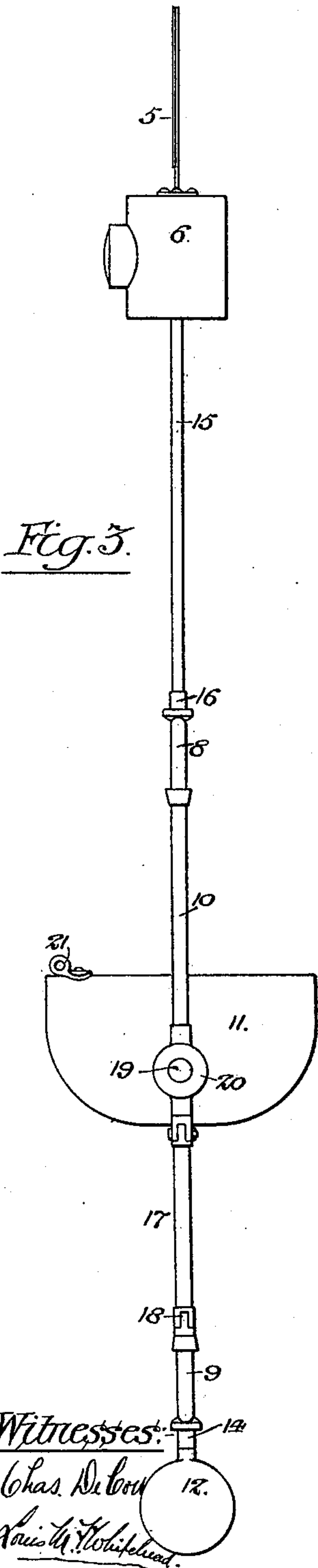
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2 Sheets—Sheet 2.



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UNITED STATES PATENT OFFICE.

CHARLES W. SHAW, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO JULIAN L. VAN THUYNE, OF SAME PLACE.

TOWING-INDICATOR.

SPECIFICATION forming part of Letters Patent No. 636,699, dated November 7, 1899.

Application filed July 17, 1899. Serial No. 724,084. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. SHAW, a subject of the Queen of Great Britain and Ireland, (but having declared my intention of becoming a citizen of the United States,) residing in Philadelphia, Pennsylvania, have invented a Towing-Indicator, of which the following is a specification.

My invention consists of means adapted to be carried or acted upon by the towing-hawser of a towboat for the purpose of indicating to the helmsman of a towed barge during thick weather either the position of the towboat or the position of the barge ahead should there be more than one barge in the tow, either one acting as a towing medium.

In the accompanying drawings, Figure 1 is a view in elevation, showing a towboat having a barge in tow and also illustrating my invention. Fig. 2 is a perspective view of the position-indicator. Figs. 3 and 4 are side and end elevations, respectively, of the same; and Fig. 5 is a diagram view in plan, showing in full lines a tow under normal conditions, the towboat and barges being in a straight line, and showing in dotted lines possible divergent courses of the towboat and barges should they become hidden from each other because of thick weather.

With the ordinary method of towing barges it has been almost impossible to proceed at sea during thick weather owing to the fact that the towboat is hidden from the helmsman of the forward barge and each barge of the tow is hidden from the helmsmen of the succeeding barges. Instances are well known of tows getting so far out of the course of the towboat as to tear the entire bow off the forward barge or the towing apparatus out of the towboat, such accidents being due to the side strain put upon the towing apparatus or barge connection by reason of the angle of the tow-rope. The result of either accident is the loss of the tow.

My invention consists of an indicator to be carried or acted upon by the hawser near the bow of a towed barge and within plain sight of the helmsman of said barge and serving to indicate any lateral deflection of the hawser from a fore-and-aft line, so that the position of the towboat or the position of the barge

ahead may always be known and the course of the towed barge changed to correspond with any change in the course of the boat or barge ahead.

In Fig. 1 of the accompanying drawings, 1 represents the towboat; 2, the hawser; 3, the barge, and 4 the indicator, carried by the hawser just forward of the bow of the barge.

In Fig. 2 I have shown a perspective view of the indicator and the frame for supporting the same, and Figs. 3 and 4 are side and front elevations, respectively, of the indicator, its frame, and the saddle by means of which it rides on the hawser.

5 represents the day-mark, which is preferably disk-shaped and may be of any color easily distinguishable, and 6 is a lantern carried just below the day-mark for use at night.

7 is the frame of the indicator, preferably of the shape shown. This frame is tubular and comprises the upper and lower curved portions 8 and 9 and the vertical connecting members 10. The frame is pivotally hung to a saddle 11, adapted to ride on the hawser, and is maintained in the upright position by means of a weight 12, provided with a threaded end adapted to a threaded socket 14 in the lower part 9 of the frame 7. The rod or standard 15, carrying the day-mark 5 and the lantern 6, is threaded at its lower end and is adapted to a threaded socket 16 in the upper part 8 of the indicator-frame. One of the vertical members 10 of the indicator-frame 7 has a portion 17 hinged at 18 and adapted to be opened, as shown by dotted lines in Fig. 4, whereby the frame may be placed in the proper position on the hawser. The saddle 11, adapted to ride on the hawser, is preferably made of sheet metal, semicircular in shape, and is provided with pivot-pins 19, adapted to journal-bearings 20, carried by the vertical members 10 of the indicator-frame 7. An eye 21 is secured to the rear end of the saddle 11, to which a lanyard 22 is attached, by which means the saddle may be maintained in a certain position on the hawser with relation to the barge. While I have shown the indicator-frame pivoted to the saddle and prefer this construction, this is not essential, as the frame could be fixed to the saddle without altering the effect of the indicator.

Under normal conditions the weight 10 will be sufficient to maintain the indicator-frame in an upright position. Should fog or storm be accompanied by wind, however, there might be a tendency of the frame to be moved out of the vertical by the turning of the saddle on the hawser. To prevent this, the saddle may be secured to the hawser in any desired manner.

10 In Fig. 5 I have shown in full lines a tow proceeding under normal conditions, the tow-boat and barges being arranged in a straight line fore and aft. In dotted lines is indicated the position the tow might assume when the towboat becomes invisible in thick weather. 15 Under such conditions abnormal strains would be exerted upon the towing apparatus and connections of the towboat and barges and accidents such as before noted would occur. The same result would happen should the towboat start back to look up the tow. With the use of my indicator, however, the danger of such accidents is obviated, and the helmsmen of the different barges may always 25 know the position of the boat ahead of them and acting as the towing medium.

While I always prefer to mount the indicator upon the towing-hawser, my invention includes an indicator however mounted when 30 said indicator is so acted upon by said towing-hawser as to indicate a port or starboard deflection of the same.

Having thus described my invention, I claim and desire to secure by Letters Patent— 35 ent—

1. The combination of a barge or other vessel, a towing-boat, a towing-hawser between the barge and the towing-boat, and an indicator mounted on the hawser.

40 2. The combination of a barge, a towing-boat, a towing-hawser between the barge and

the towing-boat, and an indicator carried by a saddle adapted to ride on the hawser.

3. As a new article of manufacture, a towing-indicator comprising a frame, signaling 45 devices carried by said frame and a saddle adapted to ride on a hawser and to which the said frame is pivoted.

4. The combination in a towing-indicator of the frame, a signal carried by the same, a 50 saddle to which said frame is pivoted, and means for maintaining said frame in an upright position.

5. The combination in a towing-indicator of the frame, a saddle to which said frame is 55 pivoted, indicating-marks carried by the frame, said frame having a hinged portion by which it may be adapted to the hawser.

6. The combination in a towing-indicator of the frame, a saddle to which said frame is 60 pivoted and which is adapted to ride on the hawser, and means carried by said saddle for securing it to the hawser whereby the frame will be maintained in an upright position.

7. The combination in a towing-indicator 65 of the frame, a saddle to which said frame is pivoted and which is adapted to ride on a hawser, and a weight carried by the frame for maintaining the same in an upright position. 70

8. The combination in a towing-indicator of the frame, a saddle to which said frame is 75 pivoted, and a lanyard connected to the saddle for maintaining it in the proper position on the hawser with relation to the barge.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHAS. W. SHAW.

Witnesses:

MURRAY C. BOYER,
JOS. H. KLEIN.