T. J. MACGENN.

BUOY.

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1,066,636. Patented July 8, 1913.

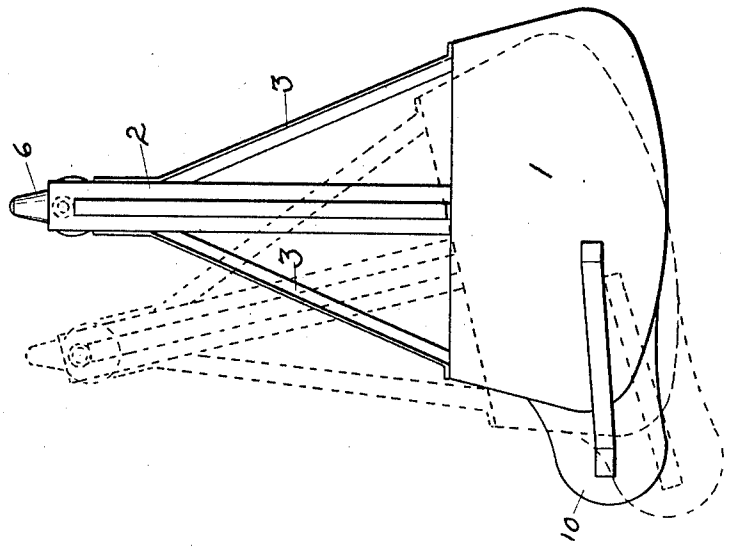


Fig. 2.

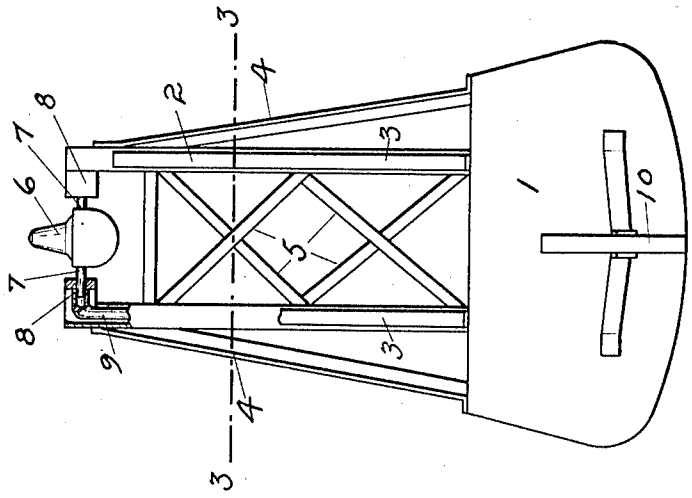


Fig. 1.

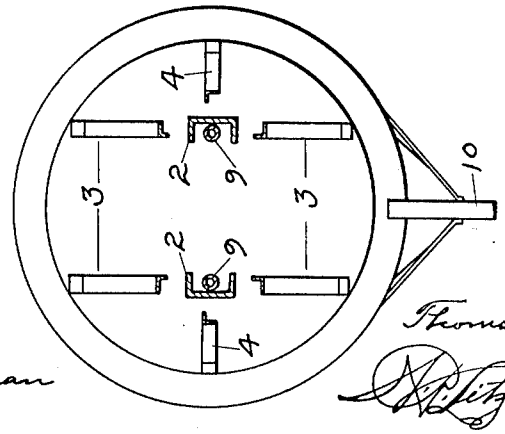


Fig. 3.

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BUOY.

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To all whom it may concern:

Be it known that I, THOMAS J. MACGENN, a citizen of the United States, and a resident of the city of Portland, county of Multnomah, and State of Oregon, have invented certain new and useful Improvements in Buoys, of which the following is a specification.

My invention relates to buoys, and more particularly to improvements therein whereby to make more certain the showing or sounding of their signals in order to make their presence and location known.

My invention relates particularly to what is known as gas buoys or bell buoys, and has among its salient objects, first, to provide a buoy with a rudder by means of which its position relative to the line of movement of the water is determined; second, to provide a signal member, whether it be a gas burner or bell, pivotally mounted thereupon to turn upon an axis extending transversely of the plane of said rudder, whereby said signal member will always hang plumb, no matter to what angle said buoy may rock, for the reason that the rocking movement of the buoy will always be in the line of the rudder; and third, to provide suitable connections or bearings for said signal member, whereby its operation is made certain.

In order to fully explain and illustrate my invention, I have shown it embodied in a gas buoy, which I will now describe.

In the drawings,—Figure 1 is a rear elevation of the invention as embodied in a gas buoy; Fig. 2 is a side elevation of the same; and Fig. 3 is a top plan view, partly in section, taken on the line 3—3 of Fig. 1.

Referring now to the drawings, 1 designates the body of the buoy which may be of any desired or suitable form or construction, and 2—2 the supporting frame members, shown in the present construction as made of channel iron, suitably braced through the brace members 3—3 and 4—4, and if desired, strengthened by means of cross braces as 5—5.

6 designates a gas burner mounted upon and turning with the short pipes 7—7, which connect at their opposite ends, and by means of a universal or other suitable flexible joint, as 8—8, with the main feed pipes, as 9—9, extending within the channel irons 2—2 to the source of supply. By this construction, the channel irons serve not only as a supporting frame, but as a protection for said pipes, protecting same from drift and other objects which might damage them.

10 designates a rudder secured, as indicated to the body of the buoy and by means of which said buoy is always moved, through the action of the water thereupon, so that the rudder rests in a line corresponding to the direction of the movement of the water. It will be noticed that the support of the burner, by reason of the universal or flexible joints, enables said burner to move upon an axis extending transversely of the line of the rudder and also transversely of the direction of the current or movement of the water. The rocking movement of the buoy will, by reason of the rudder, always be in the line of the rudder and of the movement of the water, so that, no matter to what angle the buoy may rock, the burner will always remain plumb, or in an upright position, so as not to interfere with the flow of the supply of gas, or cause the light to go out on account of the cutting off of the supply, as is the case with most of the buoys of this construction now in use.

So far as I am aware, this is the first signal buoy with a rudder attached for the purpose of holding the buoy in a position whereby a pivotally supported signal member carried thereby will remain in a plumb position during the rocking movement of the buoy. I am aware that this idea can be applied in other ways and with different kinds of signal buoys, and I do not, therefore, limit the invention to the particular application here shown for the purpose of illustrating the invention, but claim broadly the general application of a rudder to a signal buoy for the purpose of holding it in a position relative to the direction of movement of the water and the rocking of said buoy, whereby its signal member, pivotally supported thereupon will be maintained in an upright position.

I claim:

1. A buoy comprising in combination a body provided with a fixed rudder resting in a vertical plane to determine the position of said body relative to the movement of the water in which it is anchored, a signaling device pivotally supported upon an axis extending transversely of the plane of said rudder, and adapted to move freely whereby to hang normally plumb during any rocking or tilting movement of said buoy, for the purpose described.

2. In a gas buoy having a gas chamber, supporting frame, gas burner and communicating pipes between said chamber and burner, the combination therewith of means pivotally supporting said burner, and a rudder resting in a vertical plane at right angles to the axis of said pivotal support for said burner, whereby to determine the position of said buoy relative to the movement of the water and to insure a plumb position for said burner, substantially as indicated.

3. In a gas buoy having a gas chamber, supporting frame and gas burner, of means pivotally supporting said burner whereby to permit it to hang plumb, means connecting said gas chamber with said burner, a rudder secured to said buoy whereby to determine the position of the buoy relative to the direction of movement of the water, and a guard frame protecting the communicating pipes from said gas chamber to said gas burner, as described.

4. In combination with a buoy having a pivotally mounted signaling device adapted to swing freely so as to hang normally plumb upon its pivotal support, of a fixed rudder standing in a vertical plane transversely of the axis of said signaling member, whereby to hold said buoy, relative to the movement of the water, so that its tilting movements will be transversely of said axis for the purpose mentioned.

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Witnesses:
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."