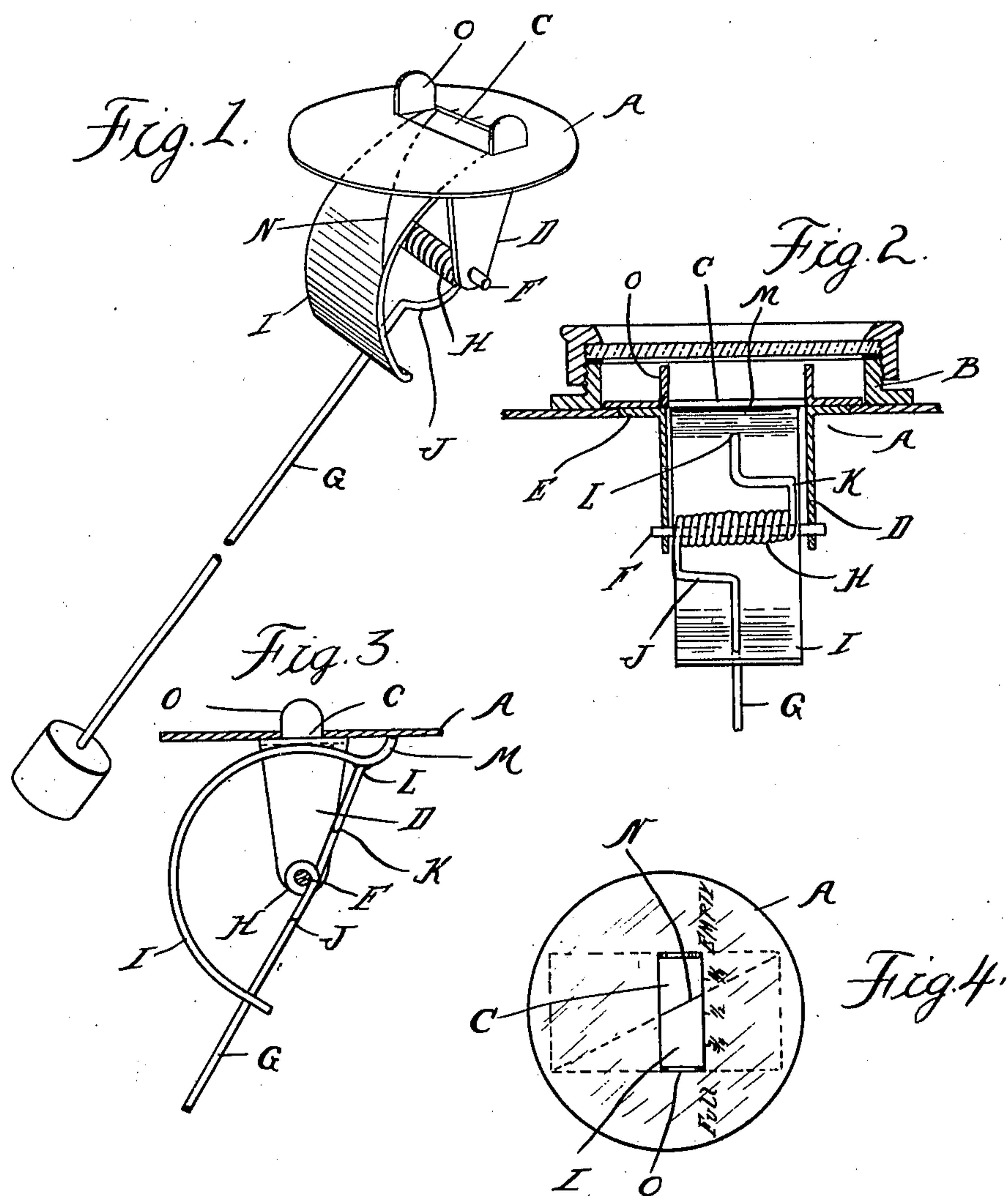


B. WEBSTER.
GAGE.
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1,298,606.

Patented Mar. 25, 1919.



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UNITED STATES PATENT OFFICE.

BENJAMIN WEBSTER, OF DETROIT, MICHIGAN, ASSIGNOR TO PERFECTION GAUGE COMPANY, OF DETROIT, MICHIGAN, A CORPORATION OF MICHIGAN.

GAGE.

1,298,606.

Specification of Letters Patent.

Patented Mar. 25, 1919.

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To all whom it may concern:

Be it known that I, BENJAMIN WEBSTER, a citizen of the United States of America, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Gages, of which the following is a specification, reference being had therein to the accompanying drawings.

10 The invention relates to gages of the float-operated type, and it is the object of the invention to obtain a simple and direct means of effecting an indication. To this end the invention comprises the construction as hereinafter set forth.

In the drawings:

Figure 1 is a perspective view of the gage detached;

Fig. 2 is a cross section;

20 Fig. 3 is a longitudinal section; and

Fig. 4 is a plan.

A is a disk cover, which may be constructed to fit within the fill opening B of the liquid fuel tank or other apparatus in which the gage is employed; C is an aperture in the disk A; D are ears depending from the disk at opposite ends of the aperture C, being preferably formed with angle flanges E spot-welded or otherwise secured to the disk; F is a pivot pin passing through and between the ears D; G is a float-arm preferably formed of wire and having a coil H surrounding the pin F; and I is a segment concentric with the pin F and suitably secured to the arm G, preferably by a two-point engagement. As specifically shown, the arm G extends in the central plane of the segment and passes through an aperture adjacent to one end thereof, being then offset at J to one end of the coil H, while from the opposite end of said coil is an extension of the wire offset at K to the central plane of the segment and engaging the opposite end thereof at the point L. This will securely fasten the segment to the arm and will maintain the same concentric with the pin F. The upper end of the segment has an outwardly-bent portion M which contacts with the lower face of the disk A and operates as a stop to limit the swinging movement of the arm.

The mechanical construction being as thus far described, to effect the indication a

spiral index N is marked or otherwise formed on the outer face of the segment I, and upon the disk A adjacent to one edge of the aperture C are suitably calibrated markings. Thus, whenever the arm G is rocked by the actuation of the float (not shown) the segment I will be correspondingly rocked and will display a different portion of the spiral N through the aperture C adjacent to the calibration on the disk A. Each point of adjustment will produce a different position of the index in relation to the scale, but in every case the line is clearly displayed, so that a reading can be easily taken.

One advantage of the construction is the simple mechanical movement which does away with the necessity of gears or any other translating devices for changing the direction of the motion. Also the fact that the pin F is the only fulcrum avoids danger of the sticking or binding of parts which might render the indication inaccurate. Another advantage is the low cost of manufacture, and still another the fact that the gage may be inserted in the fill opening of the tank or liquid holding receptacle and may be readily withdrawn therefrom when the tank is to be re-filled. To facilitate this withdrawal I preferably provide struck-up ears O formed from the metal removed from the aperture C, these forming convenient grips for the thumb and finger in lifting out the gage.

The arrangement of the stop M at one end of the segment, which by contact with the disk A limits the swinging of the arm G, prevents inoperative arrangement of the gage mechanism in the liquid tank. Thus without such a stop there would be the possibility of the float arm being arranged to extend in the opposite direction so that the indicating segment would be reversely operated, but with the stop the arm is held at an angle where the rising of the liquid will always cause the correct indication.

What I claim as my invention is:

1. A gage, comprising an apertured plate or dial, a pivot bearing depending therefrom, a cylindrical segment having a spiral index thereon coöperating with markings on said plate adjacent to said aperture, and a member engaging said pivot bearing having a portion extending in one direction from

said bearing forming a support for said segment and in another direction therefrom forming a float arm.

2. A gage, comprising an apertured plate or dial, a pivot bearing depending therefrom, a cylindrical segment having a spiral index thereon, and a float arm pivoted in said bearing, secured to said segment and forming the actuating means therefor.

3. A gage, comprising an apertured plate or dial, a depending pivot bearing on said plate, a pin engaging said bearing, an arm having a coiled portion engaging said pin, and a segment secured to said arm and rocked thereby adjacent to said aperture.

4. A gage, comprising an apertured dial or plate, a depending pivot bearing on said plate, a wire rock-arm having a transversely-extending coiled portion and portions extending longitudinally on opposite sides of the coil, a pivot pin engaging said coil and bearing, and a segment mounted on said arm and extension thereof and rocked thereby adjacent to said aperture.

5. A gage, comprising a plate or dial having an aperture therein and lugs struck up from the material removed from said aperture forming thumb and finger grips, a pivot bearing depending from said plate, a rock-arm pivoted to said bearing, and a

segment mounted on said rock-arm concentric with said pivot and rockable beneath said plate adjacent the aperture therein.

6. A gage, comprising a rock-arm, a rockable segment secured thereto, an apertured plate through which said segment may be viewed, and a projection from said segment at one end thereof for impinging against said plate to form a stop for limiting the swinging of said rock-arm in one direction.

7. A gage comprising an apertured plate or dial, an arm pivotally supported by said plate, a float carried by said arm and a segment secured to said arm and rocked thereby adjacent to said aperture.

8. A gage comprising an apertured plate or dial, an arm having a coiled portion, a pivotal support for said arm carried by said plate and engaging the coiled portion thereof, and a segment secured to said arm and rocked thereby adjacent to said aperture.

9. A gage comprising a rock arm and rockable segment secured thereto, an apertured plate through which said segment may be viewed, and means limiting the rocking of said segment in one direction.

In testimony whereof I affix my signature.

BENJAMIN WEBSTER.