

(No Model.)

A. R. WELCH.
LIQUID GAGE.

No. 523,158.

Patented July 17, 1894.

Fig. 1

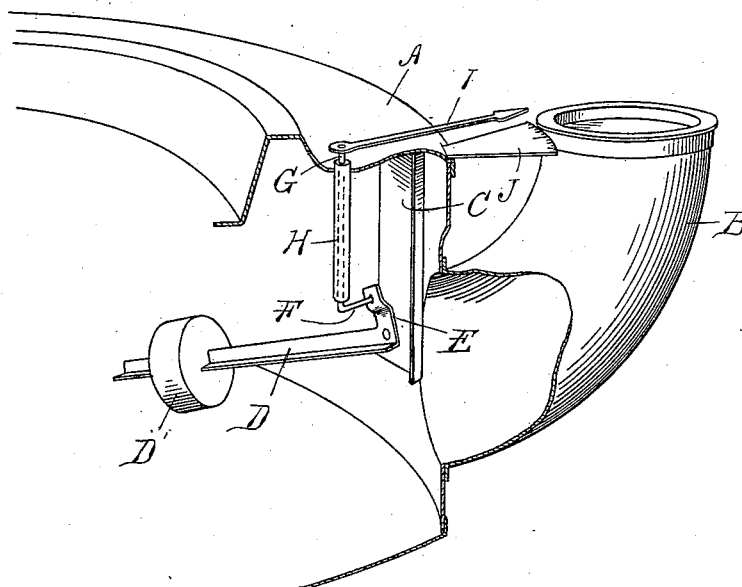
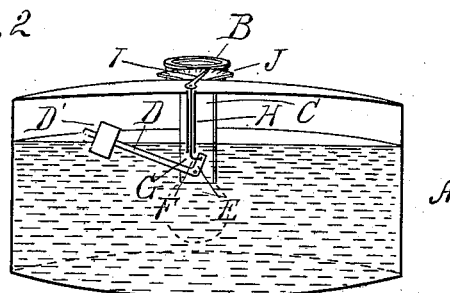


Fig. 2



Witnesses:
P. M. Hulbert
M. J. McLaugherty

Inventor:
Allie R. Welch
By Thos. S. Spague & Son
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UNITED STATES PATENT OFFICE.

ALLIE R. WELCH, OF CHELSEA, MICHIGAN, ASSIGNOR OF ONE-HALF TO
FRANK P. GLAZIER, OF SAME PLACE.

LIQUID-GAGE.

SPECIFICATION forming part of Letters Patent No. 523,158, dated July 17, 1894.

Application filed March 28, 1894. Serial No. 505,427. (No model.)

To all whom it may concern:

Be it known that I, ALLIE R. WELCH, a citizen of the United States, residing at Chelsea, in the county of Washtenaw and State of Michigan, have invented certain new and useful Improvements in Liquid-Gages, of which the following is a specification, reference being had therein to the accompanying drawings.

10 The invention consists in the peculiar construction of a liquid gage, comprising a float secured to the long arm of the bell crank lever, a hanger or bracket suspended from the top of the tank to which said lever is pivoted
15 and a vertical, tubular bearing extending through the top of the tank, a rock shaft journaled in that bearing connected to the bell-crank lever, by means of a crank at its lower end, and the horizontally arranged index hand on the upper end of the rock shaft working over a scale or dial plate. Further
20 in the peculiar construction, arrangement and combination of the various parts, all as more fully hereinafter described.

25 Figure 1 is a section through the tank of an oil stove showing my invention in perspective as applied thereto. Fig. 2 is a sectional perspective of the tank showing a front view of my invention.

30 A is a suitable reservoir or tank. B is the filling nozzle thereof.

C is an interior hanger or bracket depending from the top of the tank and at the lower end of which is pivoted a bell crank lever on the long arm D of which adjustably engages
35 a float D', preferably a cork. The short arm E of the bell crank lever extends up beside the bracket or hanger C, and at its upper end pivotally engages the crank arm F on
40 the lower arm of the rock shaft G. This rock shaft is journaled in the vertical tubular bearing H which passes through the top of the tank and is supported therefrom. At its upper end it carries the index finger I
45 which works over a graduated scale J, the parts being combined and operating so that

the vertical movement of the float D' is transmitted through the bell crank lever to the crank F of the rock shaft G, thereby moving the finger over the scale and accurately indicating the height of the liquid. This plate J
50 is placed opposite the fill inlet so that in filling, the operator can readily see the condition of the liquid in the tank without danger of overflowing it.

55 The shaft F is slightly longer than the tubular bearing H, so that the rocking of the small arm E of the bell crank lever may operate it slightly up and down without danger of binding it against the bearing in the actuation of
60 the finger.

What I claim as my invention is—

1. The combination with a tank of a hanger or bracket therein, a bell crank lever pivoted thereto, a float on the long arm
65 thereof, a vertically arranged rock shaft having a crank arm engaging with the short arm of the bell crank lever, a tubular bearing supported from the top of the tank in which such rock shaft is journaled, a finger or
70 pointer secured in the upper end of the rock shaft, and a dial plate over which said finger moves, substantially as described.

2. In an oil stove, the combination of the oil tank or reservoir, the bell crank lever pivoted therein, the float D' slidingly engaging
75 on the long arm thereof, the rock shaft G, tubular bearing H suspended from the top of the tank in which said rock shaft is journaled, the crank arm F on the lower end of
80 the rock shaft engaging the short arm of the bell crank lever, the index finger I on the upper end of the rock shaft and the dial plate J, the parts being arranged and operating substantially as and for the purpose
85 described.

In testimony whereof I affix my signature in presence of two witnesses.

ALLIE R. WELCH.

Witnesses:

THEO. E. WOOD,
FRED WEDEMAYER.