G. & T. KOCH.

Liquid Outage Gage.

No. 219,584. Patented Sept. 16, 1879.

Fig. 1

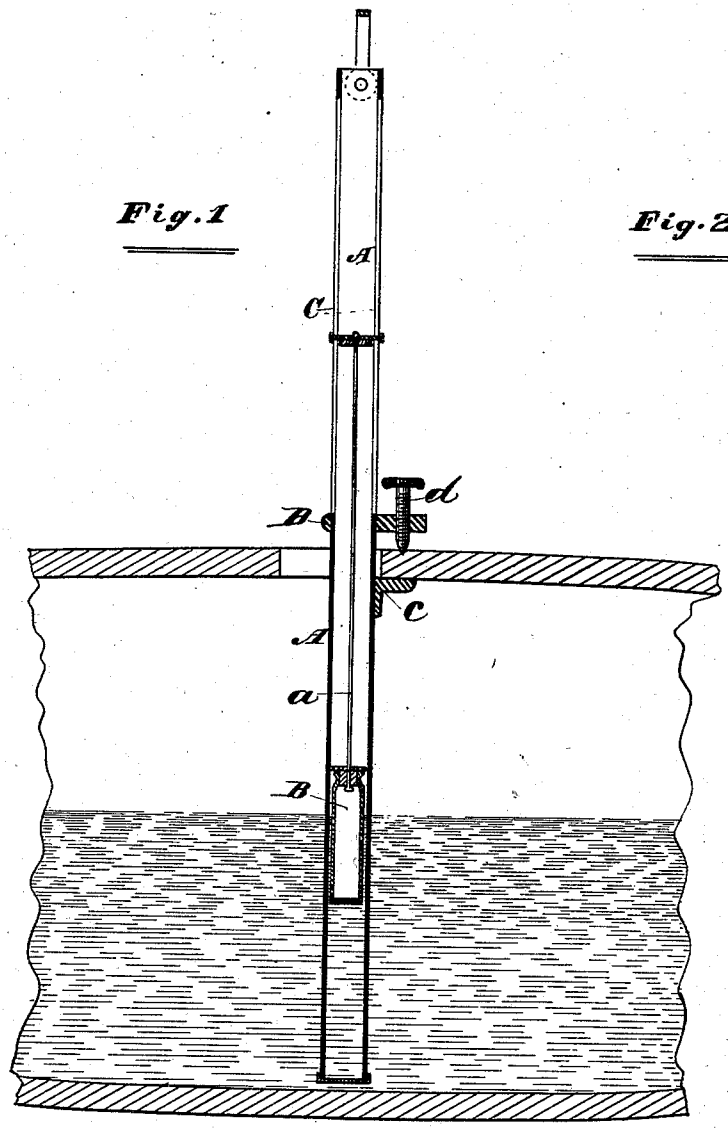


Fig. 2

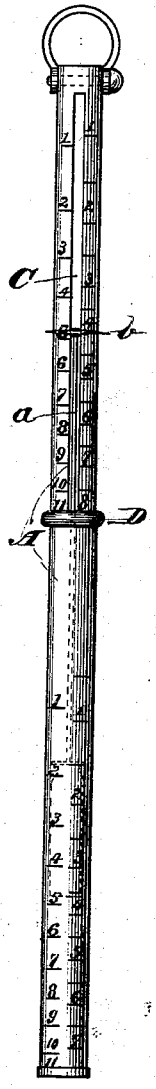




Fig. 3

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GUSTAV KOCH AND THEODORE KOCH, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN LIQUID-OUTAGE GAGES.

Specification forming part of Letters Patent No. **219,584**, dated September 16, 1879; application filed July 8, 1879.

To all whom it may concern:

Be it known that we, GUSTAV KOCH and THEODORE KOCH, have invented certain new and useful Improvements in a Liquid-Indicating In-and-Out Gage, of which we hereby declare the following to be a full, clear, and exact description, which will enable others skilled in the art to which our invention appertains to construct and make use of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a longitudinal section of the gage staff or rod inserted in a liquid-receptacle, also in section. Fig. 2 is a side view of the tubular staff or rod embodying our improvement, and Fig. 3 an inverted end view of the same.

The object of our invention is the construction of a simple, convenient, and efficient device for indicating the "inage" and "outage" of a barrel, cask, or other liquid-receptacle. The exact application, construction, and operation of the same will hereinafter be more fully explained in detail.

In referring to the drawings, A represents a tubular staff or rod, which may be of any dimensions that are suitable to the purpose. The upper end of this staff is provided with the elongated opening C. On the outer surface of the staff A, and adjacent to the opening C, is arranged one or more graduating-scales, generally four, as that number would adapt the same gage to be used in connection with four receptacles of different capacities—for instance, one-half barrel, sixteen gallons; barrel, forty-two gallons; tierce, sixty-four gallons; and hogshead, one hundred and twenty gallons. The lines and characters forming the graduating-spaces are arranged at irregular intervals, in order to conform to the varying outlines of a barrel-shaped receptacle.

On the interior of the tubular staff A is placed the float B, to which is attached the lower end of the wire *a*, and to the upper end of this wire is attached the fingers or pointers *b*, which are made to extend outward through the elongated opening C, and as the float B is actuated by the liquid this finger points to the proper mark or character on the graduating-scale, indicating the quantity or number of gallons that have been taken out of the barrel or run into the same, as the case may be, it, of course, being understood that this device is not intended as a contents-gage—that is, suppose one or more gallons up to any quantity less than one-half of the capacity of the cask is run off, by the use of this gage that quantity is quickly ascertained, which amount, of course, is required to fill the cask to its full capacity.

When the holding-capacity of a cask is known, then by the use of this gage the actual contents can be got at, but not in gaging miscellaneous packages.

This gage is particularly intended to be used in barrels or casks in which liquors are mixed—that is, where a certain quantity is required to be taken from a number of different packages and run into one receptacle.

By inserting and clamping the gage to the barrel in the manner as shown in Fig. 1 of the drawings, the end of the conducting-hose can be inserted into the bung-opening alongside of the gage, and one or more gallons, as may be required, run into the barrel, and so on, taking the proportionate quantity from each package until the barrel is filled, the fingers or pointers on the gage indicating the number of gallons taken from each package.

When the barrel is filled, and it is found to be not quite what is wanted, a certain quantity or number of gallons can be run off, and the same amount again replaced from another package, the gage in this case indicating the outage as well as the inage.

This invention is more especially intended for use in rectifying establishments, and saves a great deal of time and labor; but it is easily adapted to all kinds of liquids by the proper adjustment and weight of the float in the tubular staff.

In order to adapt this device to be used in connection with liquid-receptacles the outlines of which do not vary from the bottom to the top, have the graduated spaces at regular intervals instead of irregular.

c represents a lip-like projection attached to the tubular staff A, and when the gage is in proper position for use this lip sits close against the inside of the stave, as illustrated in Fig. 1 of the drawings. This lip, in connection with the collar D and screw-bolt *d*,

forms the clamping device by means of which the gage is secured stationary to the barrel.

We do not strictly confine ourselves to the exact arrangement herein shown for clamping the gage to the barrel, but may employ such devices or modifications as would be a just equivalent of the device herein shown.

This gage, registering upon the outside, obviates the necessity of removing the same from the barrel while in use.

The lower end of the gage staff or rod is provided with a strainer-cap, for the purpose of preventing any sediment or floating matter from entering the passage and interfering with the free movement of the float.

The graduated scale on the lower half, or that part of the staff which is inserted in the barrel, is for the purpose of adapting the gage to be used in the same manner as the common out-stick in case of the float becoming clogged or refusing to work from any cause.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a liquid-indicating gage, the combination, with the tubular staff or rod A, having one or more graduating-scales, the lines and characters representing the same being spaced at irregular intervals in order to conform to the varying outlines of a barrel-shaped receptacle, of the float B, the wire *a*, and the fingers or pointers *b*, substantially as and for the purpose herein described.

2. In a liquid-indicating gage, the combination of the following elements, viz: the tubular staff or rod A, having the elongated openings C, the fingers or pointers *b*, the wire *a*, the float B, lip *c*, collar D, and the screw-bolt *d*, all combined, connected, and operating substantially as described.

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Witnesses:
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