

No. 611,755.

Patented Oct. 4, 1898.

B. LENZEN.
LIQUID MEASURE INDICATOR.

(Application filed Feb. 11, 1898.)

(No Model.)

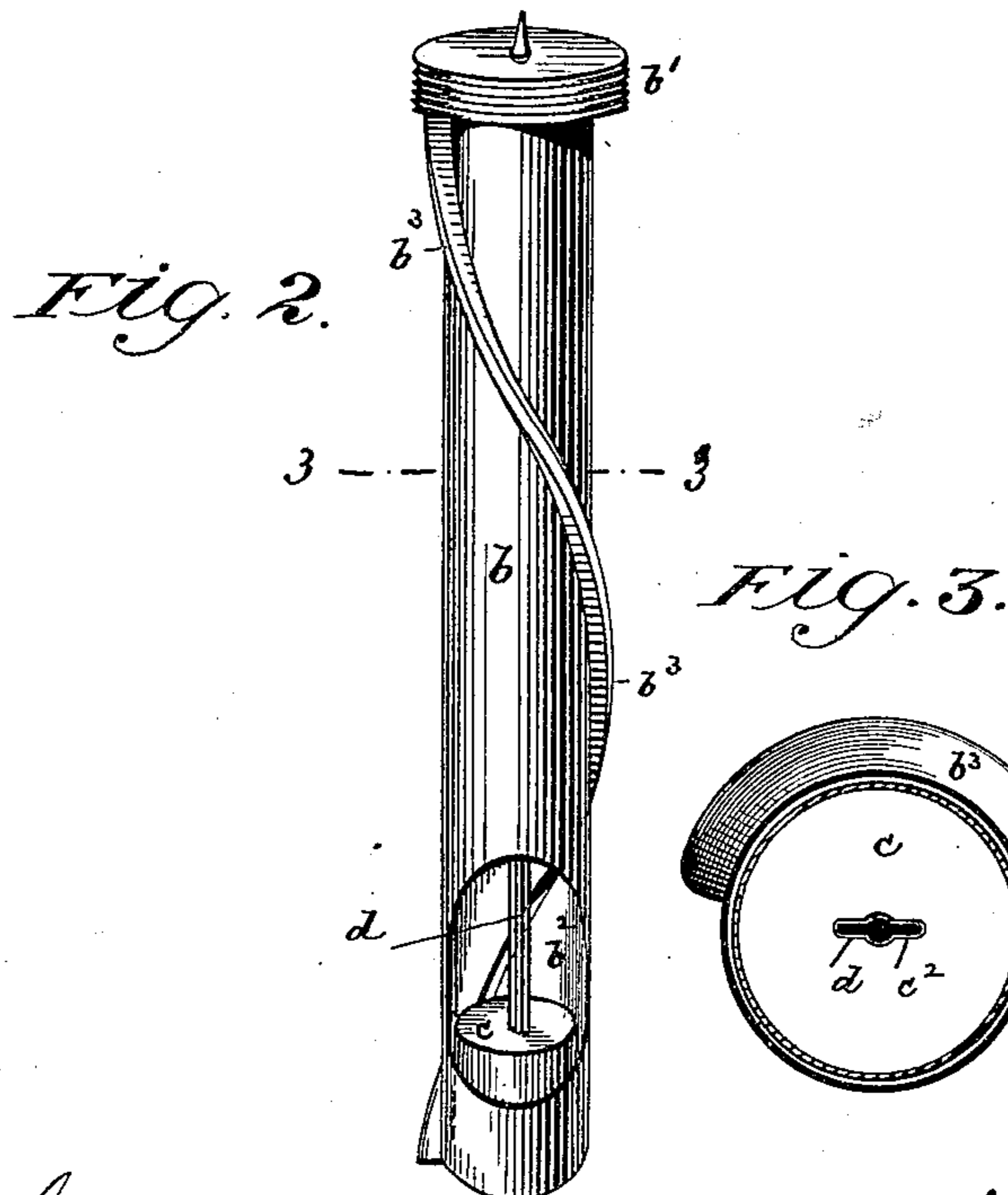
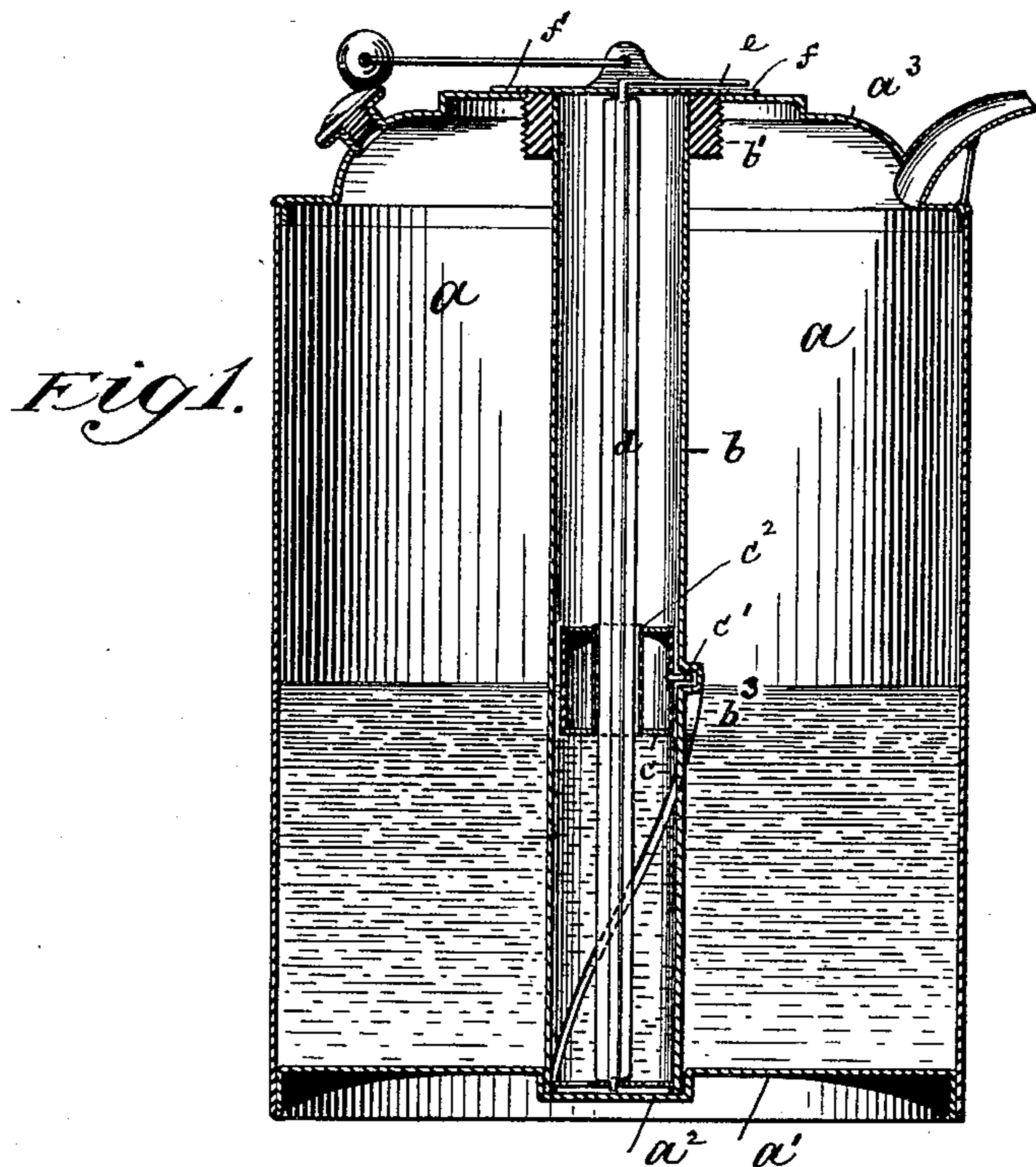
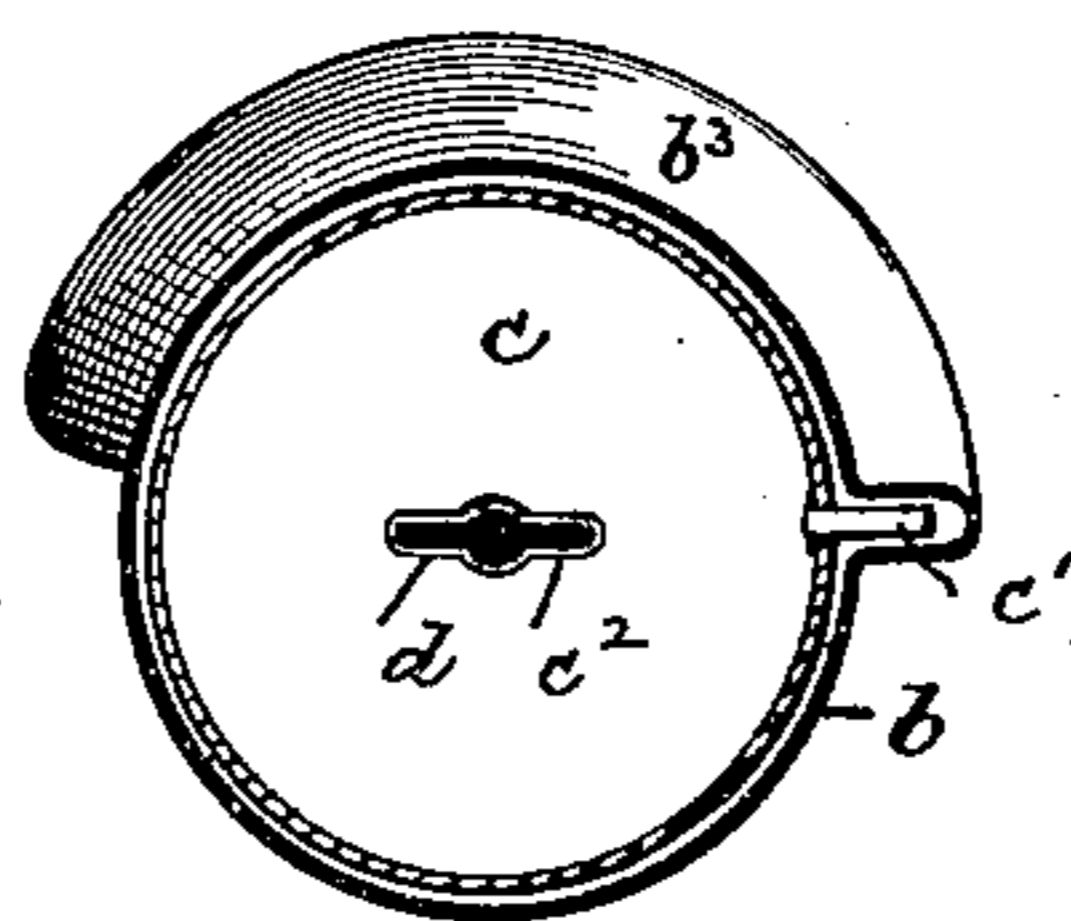


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

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LIQUID-MEASURE INDICATOR.

SPECIFICATION forming part of Letters Patent No. 611,755, dated October 4, 1898.

Application filed February 11, 1898. Serial No. 669,894. (No model.)

To all whom it may concern:

Be it known that I, BERNHARD LENZEN, of New York city, county and State of New York, have invented an Improved Liquid-Measure Indicator, of which the following is a specification.

This invention relates to a vessel for holding oil or other liquid and provided with means for automatically indicating the volume of its contents. These means consist of a pointer which is actuated by a revoluble float that rises within an upright tube having an outer convolute groove which is engaged by the pin of the float. The tube thus forms an exterior guide for the float, and all the parts are so constructed that jamming between the float-pin and the groove is prevented.

In the accompanying drawings, Figure 1 is a vertical central section of an oil-can provided with my improved indicator. Fig. 2 is a perspective view of the tube *b*; and Fig. 3, an enlarged cross-section on line 3 3, Fig. 2.

The letter *a* represents a vessel of suitable size and configuration and designed for holding oil or other liquid. The bottom *a'* of this vessel has a central depression *a''* to form an accumulating-cup, and into this cup projects the lower end of a tube *b*, which extends centrally through the vessel and has an upper threaded head *b'*, adapted to engage a corresponding orifice of the cover *a''*. The tube *b* is provided near its lower end with an opening *b''* to establish a communication between the bore of the tube and the interior of vessel *a*.

Upon the tube *b* there is formed a spiral rib *b''*, extending from the bottom to the top of the tube and placed around the outer side of the same, so as to project outwardly therefrom, Fig. 2. This rib is closed at its outer edge, but opens inwardly into the body of the tube, so that the rib forms in effect a continuous spiral projection around the tube.

Within the tube *b* there is contained a float *c* of such a form and width that the tube forms a guideway for the float. An outwardly-

projecting pin *c'* of float *c*, engaging the spiral rib *b''*, causes the float to revolve within the tube while rising or falling. The float *c* has a central elongated or squared opening *c''*, that embraces a flat or square revoluble shaft *d*, having at its lower end a bearing in the bottom of tube *b*. The upper end of shaft *d* carries or actuates a pointer *e*, revolving over a dial *f*. With smaller vessels the indicator *e* is preferably placed on top, while with larger vessels or tanks the indicator should be placed on the side, so that it can be more easily read.

As the liquid is poured into the vessel *a* it will cause the float to rise and the indicator to move over the dial at a ratio corresponding to the level of the liquid, so that the contents of the vessel can always be readily ascertained.

With my construction the tube will form an exterior guide for the float, and as the pin *c'* communicates with the inner open side of the grooved rib *b''* such rib may be closed on its outer edge, so that the entire tube is continuous or unbroken and will always retain its shape. Thus warping of the tube and a consequent jamming between the pin and the sides of the grooved rib are prevented, so that the indicating mechanism will remain true and reliable for an indefinite period.

What I claim is—

The combination of a vessel with an inner tube having an opening near its lower end, a convolute closed rib projecting outwardly from the tube and opening at its inner side into the same to constitute a communicating outer grooved guideway, a perforated float inclosed within the tube and having an outwardly-projecting pin that engages the grooved guideway, a shaft embraced and actuated by the float, and a pointer actuated by the shaft, substantially as specified.

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Witnesses:

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