

No. 640,336.

Patented Jan. 2, 1900.

J. J. TOKHEIM.
MEASURING PUMP.
(Application filed Oct. 28, 1898.)

(No Model.)

Fig. 1.

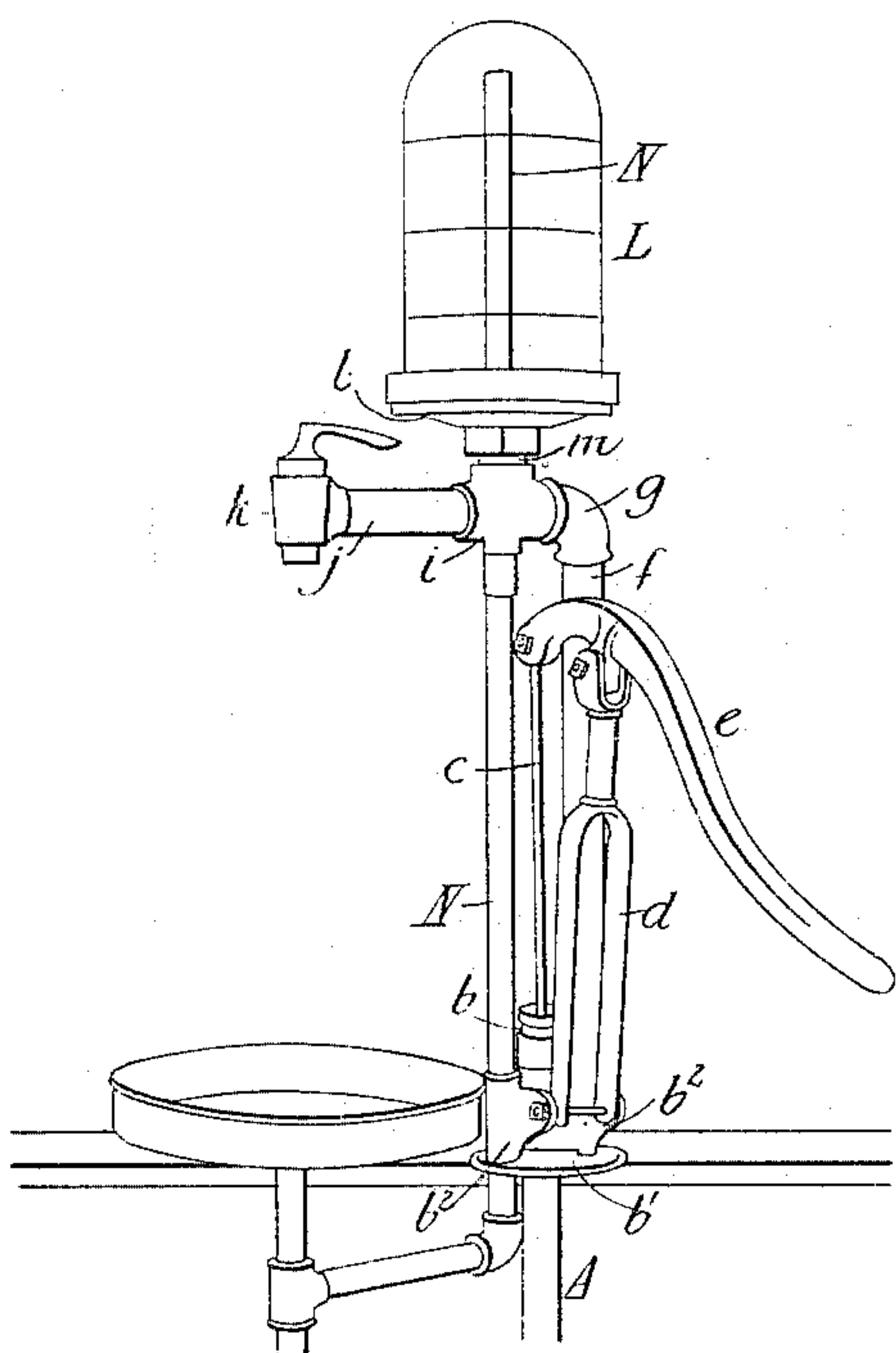
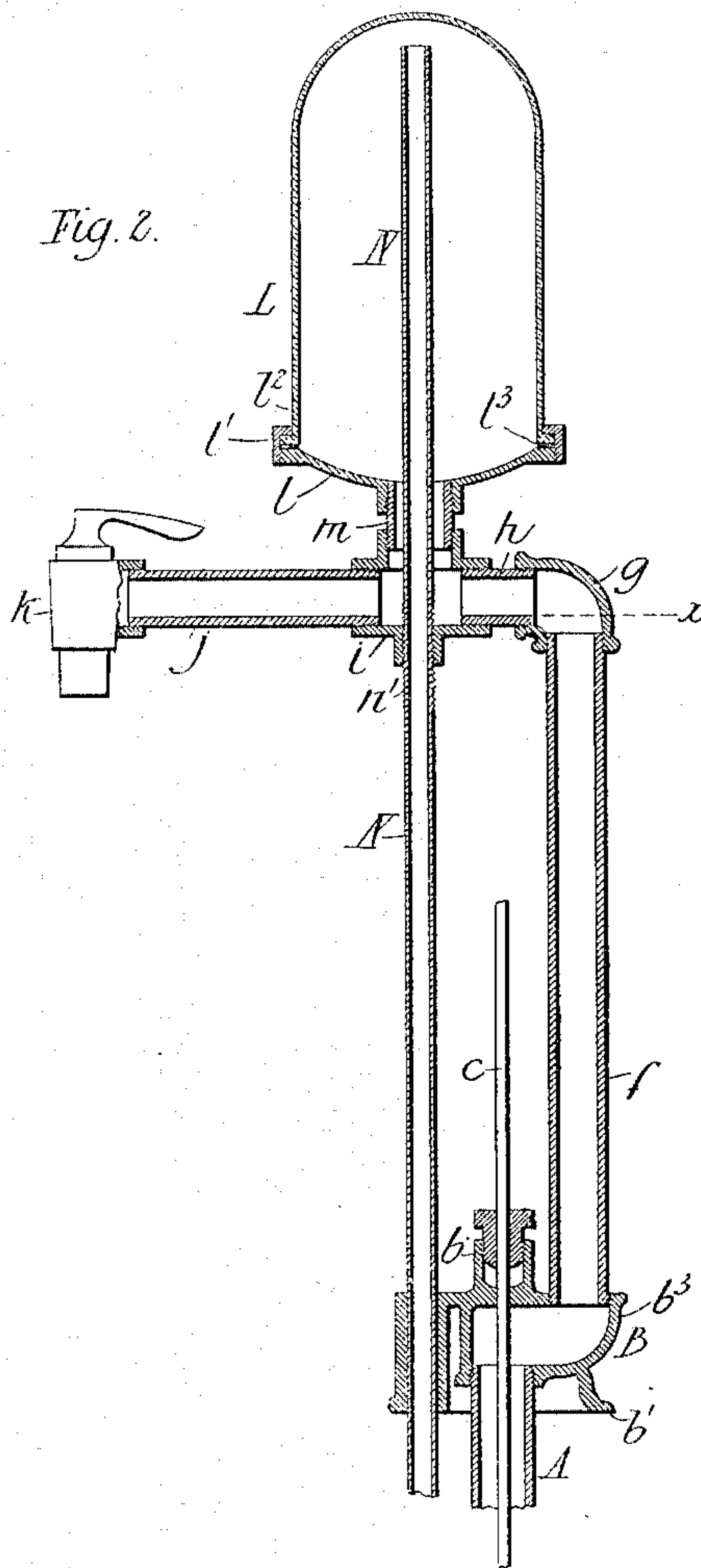


Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

JOHN J. TOKHEIM, OF THOR, IOWA.

MEASURING-PUMP.

SPECIFICATION forming part of Letters Patent No. 640,336, dated January 2, 1900.

Application filed October 28, 1898. Serial No. 694,788. (No model.)

To all whom it may concern:

Be it known that I, JOHN J. TOKHEIM, a citizen of the United States, residing at Thor, in the county of Humboldt and State of Iowa, have invented certain new and useful Improvements in Measuring-Pumps; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to measuring-pumps, and has for its object the production of an improved appliance of this character by which liquid, such as oil, may be accurately measured.

My invention includes, among other novel features, a receptacle for the pumped liquid having provision in the shape of an adjustable overflow for predetermining its liquid content, and also a means for effecting the complete draining of the receptacle and discharge-pipe when such predetermined liquid content shall have been exhausted.

My invention in all of its details is fully and clearly set forth in the following description, and in connection with this description attention is called to the accompanying drawings, in which—

Figure 1 is a perspective view of a measuring-pump embodying my invention. Fig. 2 is a sectional view, certain of the parts being omitted.

Referring to the said drawings by letter, A denotes the pump-stock, which leads from a liquid-containing cask or tank and in which is the pump-piston. (Not shown.) The upper end of the pump-stock A is screwed into the lower side of a coupling B, and at the upper side of this coupling is a stuffing-box *b*, through which passes the piston-rod *c*. The coupling is provided with a base-flange *b'*, by which it is secured to a suitable platform. At *b²* *b²* on the coupling are ears, to which is pivotally attached the lower bifurcated end of an arm *d*, forming the fulcrum of the pump-handle *e*. Screwed into a lateral branch *b³* of the coupling B is the supply-pipe *f*, which is in communication with the pipe-stock and is connected at its upper end by an elbow *g*

with a short pipe *h*. This latter pipe is screwed into an inverted-T-coupling *i*, and into the opposite side of the coupling *i* and in line with the pipe *h* is screwed the outlet-pipe *j*, which terminates in a faucet *k*. The reservoir L is supported by the coupling *i* through the medium of a short pipe *m*, which is screwed into the flanged opening of the reservoir base-plate *l*. This plate is threaded at its outer edge to receive a threaded ring *l'*, which ring is flanged at its upper side to engage the lower flanged end of the reservoir-casing *l²*, a gasket *l³* being interposed between the said lower edge and plate to secure a liquid-tight joint.

N denotes the overflow-pipe of comparatively small diameter, which extends from the cask or tank through an aperture in the coupling B and thence through the coupling *i* and pipe *m* into the reservoir-casing, where it terminates near the top of the latter. At the point where the pipe N is passed through the coupling *i* screw-threads *n'* are provided, which engage threads in the coupling-opening, whereby by turning the pipe to the right or left its vertical position with relation to the height of the reservoir may be varied. On the reservoir-casing, which is of glass or other transparent material, are graduation-lines denoting fractions of a gallon. These lines may, however, be placed upon the overflow-pipe N.

In operation the liquid, such as oil, is drawn from the cask or tank and forced upward through the supply-pipe, and after filling the pipe *h*, coupling *i*, and outlet-pipe *j* the liquid rises into the reservoir to a level which is predetermined by the height of the overflow-pipe N. Obviously by the employment of the overflow-pipe the liquid content of the reservoir is accurately determined, any excess finding its way back to the cask or tank. The graduation-lines are employed to denote the quantity of liquid contained in the reservoir, and also in the outlet-pipe, coupling *i*, pipes *m* and *h*, and elbow *g* down to the line *x*, and in measuring off the liquid through the faucet *k* the content of the connections is thus taken into account, the result being the draining of these connections when the full quantity—say, for instance, a gallon—has been drawn. The advantages of such a construction are that little care and skill need be exercised either

in filling the reservoir or in drawing off the entire content and also that repairs and adjustments are greatly facilitated by the provision for draining the connections adjacent
5 to the reservoir.

In assembling the parts of my improved measuring-pump the feature of the adjustable overflow-pipe will be found to have great advantage in that by regulating its height
10 with relation to the reservoir the liquid content of the latter may be accurately predetermined.

The appliance is very simple in construction, very durable and not liable to disorder,
15 and may be produced inexpensively.

I claim as my invention—

1. In a measuring-pump and in combination with a chambered base-casting, and the pump-stock entering said chamber, the piston-
20 rod passing through said chamber, the supply-pipe standing from the upper side of said chamber, and terminating in a horizontal discharge branch controlled by a faucet, a reservoir mounted upon and opening into the
25 discharge branch between the standing supply-pipe and the faucet, and an overflow-pipe mounted in a guide-arm of said base-casting, passing transversely through said discharge branch, having a surface screw engaging a
30 threaded tubular part on the under side of

said branch and passing into the reservoir, the opening wherein is larger than the overflow-pipe.

2. In a measuring-pump, a chambered base-casting having a screw-opening on its under
35 side, a screw-opening and a stuffing-box both on its upper side, and a vertical side tubular arm, in combination with the pump-stock engaging said chamber-bottom opening, the standing supply-pipe engaging the upper
40 opening of said chamber and terminating in a horizontal discharge branch controlled by a faucet and having a depending tubular screw part, a reservoir mounted upon and opening
45 into the branch pipe vertically in line with the tubular screw part, the piston-rod passing through said casting-chamber and stuffing-box, and an overflow-pipe mounted in the tubular arm of the base-casting and provided
50 with a surface screw engaging the tubular screw part of the branch pipe, passing through the latter and through an opening in the reservoir having a greater diameter than the overflow-pipe.

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

JOHN J. TOKHEIM.

Witnesses:

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JOHN O. OLSON.