(No Model.)

2 Sheets--Sheet 1.

W. J. LANE.

Registering Attachment for Faucets.

No. 232,277. **Patented Sept. 14, 1880.**

Fig. 1.

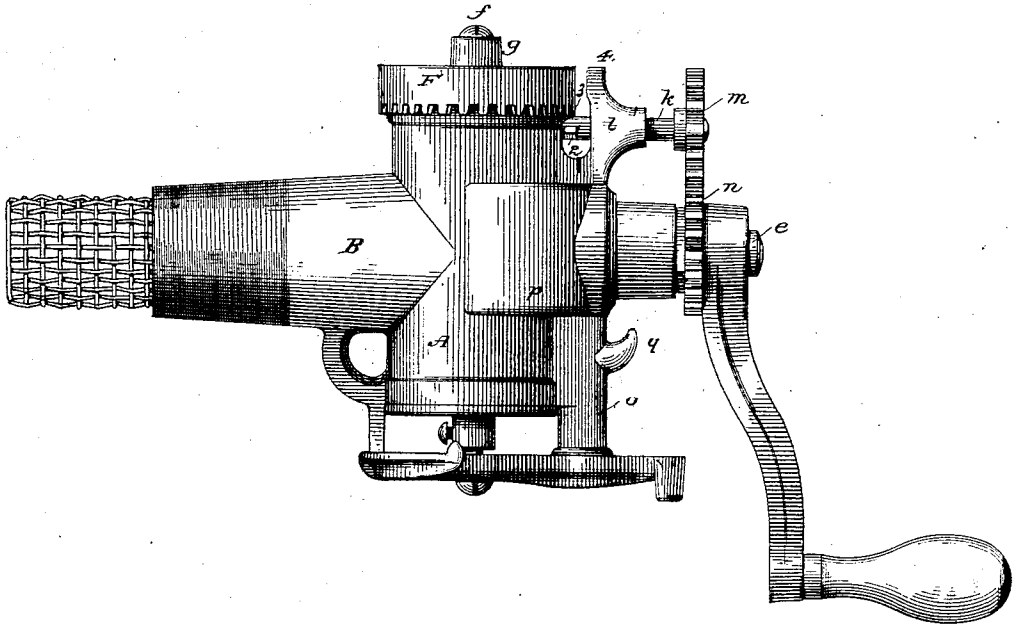
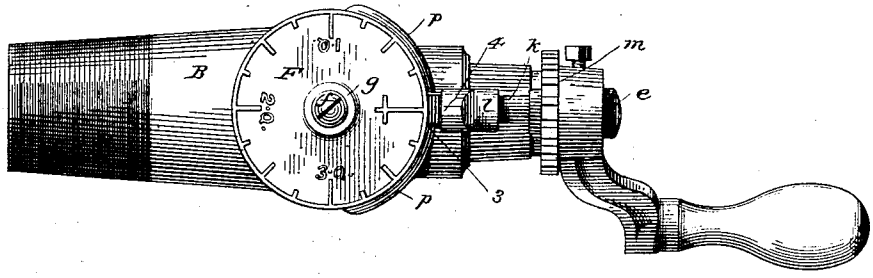


Fig. 2.



Attest:

R. F. Barnes.

Warren Seely.

Inventor:

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(No Model.)

2 Sheets—Sheet 2.

W. J. LANE.

Registering Attachment for Faucets.

No. 232,277. **Patented Sept. 14, 1880.**

Fig. 3.

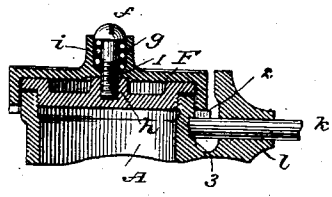
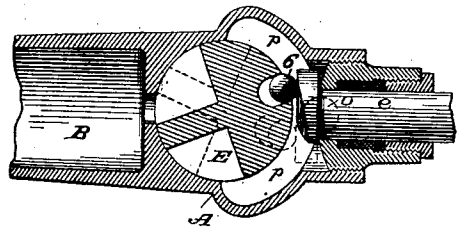


Fig. 4.



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UNITED STATES PATENT OFFICE.

WILLIAM J. LANE, OF MILLBROOK, NEW YORK.

REGISTERING ATTACHMENT FOR FAUCETS.

SPECIFICATION forming part of Letters Patent No. 232,277, dated September 14, 1880.

Application filed June 2, 1880. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. LANE, of Millbrook, in the county of Dutchess and State of New York, have invented a new and useful Improvement in Measuring-Faucets; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention relates to measuring-faucets of that class in which a certain amount is discharged at every rotation or partial rotation of a shaft. It is in the form shown specially adapted to the kind of measuring-faucet described in Letters Patent granted me May 14, 1878, and numbered 203,627, but is applicable to other than this particular apparatus.

The object of my invention is to simplify the structure and to render it more compact and more symmetrical in form.

It consists of a revolving dial in the form of a crown-wheel placed on the head of the measuring-cylinder, and adapted to be turned intermittently by means of the revolution of the shaft which operates the measuring and discharging devices.

It also consists of certain details of construction relating to the operating devices, and to the modifications in the form of faucet shown in the patent referred to, which modifications are made necessary by and are incidental to my special improvement in the registering device.

In the accompanying drawings, Figure 1 is a side elevation, and Fig. 2 a plan view, of the top of my improved faucet. Fig. 3 represents the end of the cylinder in longitudinal section with the crown-wheel attached. Fig. 4 is a central transverse section.

In these drawings, A represents the casing in which the piston works. The tapering branch for connection with the cask is shown at B, and another branch diametrically opposite receives the shaft *e*, which operates the measuring-plunger E. The operation of this plunger is exactly as described in the patent upon which this device is an improvement. Briefly, it consists of a cylinder cut away to form two recesses and fits closely within the casing A. It receives a longitudinal motion, as well as a partial rotation, by means of an eccentric-pin, 6, on the end of the shaft *e*, which engages with a cavity in the plunger, the continuous rotation of shaft *e* producing a compound reciprocating and oscillatory motion of the plunger. This longitudinal motion produces alternately a vacuum and a pressure, the vacuum drawing the liquid from the induction-port in the pipe B, and the pressure forcing it out the eduction-pipe. The rotary motion causes the plunger to act as a valve to close and open the ports at the proper time. This plunger and means for operating it are fully described and claimed in my former patent, and therefore require here no extended description.

The casing A is adapted to be placed in vertical position when applied to the cask, and on the upper end I pivot the revolving crown-wheel F, on the upper face of which is the registering-dial. This crown-wheel is formed with a flange adapted to fit over the head of the casing, but moving freely thereon. It is held upon the head by means of a screw, *f*, which passes loosely through a boss, *g*, on the wheel into a central stud, *h*, on the head.

The boss *g* is enlarged in the upper part to admit a spiral spring, *i*, the lower end of which rests upon the flange 1 at the bottom, and is pressed down by the head of the screw to give an adjustably frictional bearing upon the wheel.

The teeth in the flange of the crown-wheel extend downward sufficiently to be struck by a stud, 2, on the shaft *k*, whereby said wheel is moved at every revolution of the said shaft. This shaft has its bearings in the casing at the point 3 on the front of the casing, and in a post, *l*, on the enlarged front of the casing. On the outer end of the shaft is a pinion, *m*, which is in gear with pinion *n* on the main shaft, which operates the plunger.

The pinion *n*, for convenience of construction, is cast as a part of the head of the crank, and is adapted to be in gear with pinion *m* when the crank is in proper place on the main shaft. The two pinions are of the same diameter, and through the stud 2 upon the shaft the crown-wheel is moved the space of a single tooth at each revolution of the main shaft. The arrangement of figures on the dial and the method of registration are precisely the same as in the patent heretofore referred to. The top 4 of the post *l* serves as an index, opposite which the zero or initial point on the

dial is placed at the beginning of the measuring operation. As the position of the casing A is vertical in this device, instead of horizontal, as in my patent before referred to, a corresponding relative change is made necessary in the discharge-orifice. For this purpose I have formed the discharge-pipe *o* on the front side of the casing and connected it with the interior of the casing at the proper points in relation to the plunger by branch pipes *p p*. The pipe *o* is closed by a gate, as in my former patent.

A hook, *q*, is cast on the front side of the pipe *o*, on which a bail may be hung to support the vessel to be filled.

It will be obvious that the crown-wheel hereinbefore described may be intermittently moved by other intermediate mechanism than that shown, and I do not confine myself to the specific devices which I have described, though I have found these simple, inexpensive, and effective.

Having thus described my invention, what I claim is—

1. The combination, with a measuring-faucet having the cylinder A and the reciprocating mechanism within said cylinder, substantially as described, of the crown-wheel F, pivoted axially on the end of said cylinder and operated from the main shaft through intermediate gearing, substantially as described.

2. The combination of the cylinder A, provided with the reciprocating plunger, the crown-wheel F, pivoted upon the center of the end of said cylinder, the shaft *k*, and stud 2, and of the pinions *m n* and the main shaft, substantially as described.

3. The combination, with the cylinder A, provided with the chambered plunger, arranged vertically and adapted to operate as described, of the passage *o* and branches *p p*, substantially as shown and described.

4. The post *l*, extended to form an index, in combination with the shaft and the revolving crown-wheel dial, as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM J. LANE.

Witnesses:
JOHN G. LANE,
JOHN W. STEINMAN.