E. JAPY & C. DAILLIER.

Registering and Measuring Faucet.

No. 196,668. Patented Oct. 30, 1877.

Fig. 1.

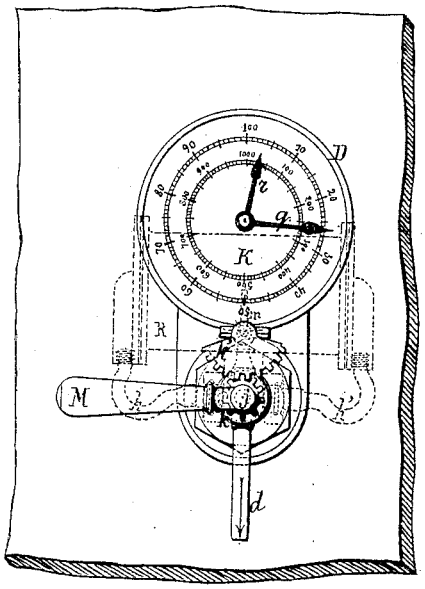

Fig. 2.

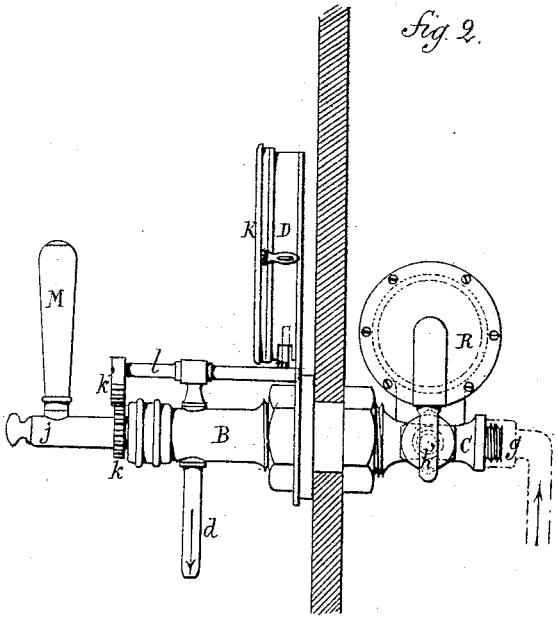

Fig. 4.

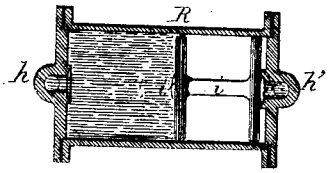

Fig. 5.

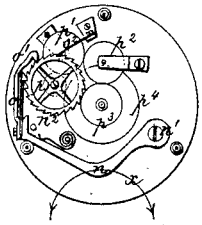

Fig. 3.

Witnesses.

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UNITED STATES PATENT OFFICE.

EMILE JAPY AND CONSTANT DAILLIER, OF PARIS, FRANCE.

IMPROVEMENT IN REGISTERING AND MEASURING FAUCETS.

Specification forming part of Letters Patent No. **196,668**, dated October 30, 1877; application filed November 11, 1876.

To all whom it may concern:

Be it known that we, MM. EMILE JAPY and CONSTANT DAILLIER, of Paris, France, have invented an Improved Cock, intended for the computation of glasses of beer, wine, or other beverages or liquids, in breweries, coffee-houses, public houses, &c., of which the following is a specification:

The improved tap which forms the subject of my invention has for its object to prevent the loss and waste which takes place daily in the retailing of liquids or beverages, arising either from the fraud or carelessness of the servants or dispensers.

The apparatus, which can be placed on the counter or on the ordinary beer-engines, only allows of a single glass being drawn at a time, which immediately registers on a dial the drawing off of the glass of liquid. In this manner the proprietor at all times of the day can see what has been sold, and at night has an absolute check on the amount taken since the last inspection, and, in consequence, the improved tap fulfills a double purpose. On the one hand it avoids loss which has hitherto taken place from the tap being imperfectly shut, and on the other hand it is absolutely impossible for fraud to be practiced.

The construction and working of the improved apparatus will be well understood by referring to the annexed drawings.

Figure 1 is a front view of the apparatus in position and attached to the supply-pipe; Fig. 2, a side view; and Figs. 3, 4, and 5 are views of detached parts, for further illustration of the following particular description.

The apparatus consists of two distinct elements, viz: the tap proper, in combination with a measuring-reservoir, furnished with a piston-valve, and the registering mechanism, which indicates on the dial each action of the tap.

The tap consists of a tubular plug, *a*, Fig. 3, having four coupled openings, *b b' c c*^{1}. The two first, *b b'*, at the outer end of the plug, correspond directly and one after the other with the outlet *d* of the tap. The other two openings are arranged in a horizontal plane, they corresponding, respectively, the one, *c*, with the end *f* of the plug *a*, and next with the conduct-tube *g*, which supplies the liquid under pressure; and the other, *c*^{1}, is in direct communication with the body of the plug *a*, for conducting the liquid passing therethrough to the opening *b* or *b'*, communicating with the outlet *d*. The two openings *c c*^{1} are thus separated by an oblique mid-feather, *c*^{2}.

Communicating with the openings *c c*^{1} are two india-rubber or metal pipes, *h h'*, fixed to the rear part of the tap, and which are, respectively, attached to the ends of the measuring-reservoir R, Fig. 4, in which reservoir a piston-valve works freely, and is furnished at each end with an elastic boss, *i' i'*, for the purpose of alternately opening and closing the end of the two conduit-pipes, *h h'*, this reservoir R, with its piston, being constructed to exactly hold a quantity equal to the contents of a glass. For beer, for example, this will be that of an ordinary tankard.

From the described arrangement it will be seen that on a half-turn of the handle M of the tap the liquid contained in the reservoir R is drawn off at the outlet *d*, and another quantity of liquor replaces, on the other side of the piston *i*, that which is drawn off said piston, thus alternately playing from one side to the other of the reservoir R; but there only escapes from the outlet *d*, at each turn of the handle, the contents of the reservoir R, and not a drop more. To draw off more liquor, the handle M is reversed, and another glass or quantity will be indicated on the dial K. The working of this dial is effected in the following manner: The rod *j* of the handle M carries a toothed segment-plate, *k*, which gears with another toothed segment, *k'*, keyed to a small shaft, *l*, parallel to the part B of the nozzle of the tap, said shaft *l* carrying a finger, *m*, (or a cam-piece,) which describes a half-revolution, (indicated at *x*, Fig. 5,) at each turn of the tap. At the middle of its course the finger *m* raises a swing-lever, *n*, pivoted at *n*^{1}, which lever, on falling, actuates the ratchet-wheel *n*^{2}, moving it one tooth around by means of the spring-catch *o*, working in connection with the top catches *o*^{1} *o*^{2}. The movement of the ratchet-wheel *n*^{2} is transmitted through the count-wheels *p p*^{1} *p*^{2} *p*^{3} *p*^{4}, the diameters of which are arranged in such wise that the wheel of the large pointer or hand *q* advances ten teeth while that of the small hand *r* advances but

one division, which thus indicates on the dial K the units and decimals of glasses sold.

The box D, which incloses the dial K, is locked and the key kept by the proprietor or authorized person, so that no one can touch the hands, and at the close of the day the accounts can be checked with facility. The apparatus is set at zero by simply turning the hands.

We do not wish to be understood as broadly claiming a measuring-faucet in which a single plug serves to lead the fluid to the measuring-receiver, and also to open the discharge, as such, we are aware, is not new.

Having now described the nature and particulars of our said invention, we claim—

The combination, in a measuring-faucet, of the measuring-receiver R, with a reciprocating-piston therein, the rotating plug *a* opening at one end to the supply, and leading by alternate rotations through the aperture *c* into the measuring-receiver on opposite sides of the piston, and by an opening, c^1, from the measuring-receiver to the discharge *d*, and a registering device to record each rotative movement of the plug, substantially as described.

In testimony whereof we have signed our names to this specification before two subscribing witnesses.

EMILE JAPY.
C. DAILLIER.

Witnesses:
CH. FROSSARD,
DAVID T. S. FULLER.