F. X. ROUSSEAU.
Measuring-Faucet.

No. 205,302. Patented June 25, 1878.

Fig. 1.

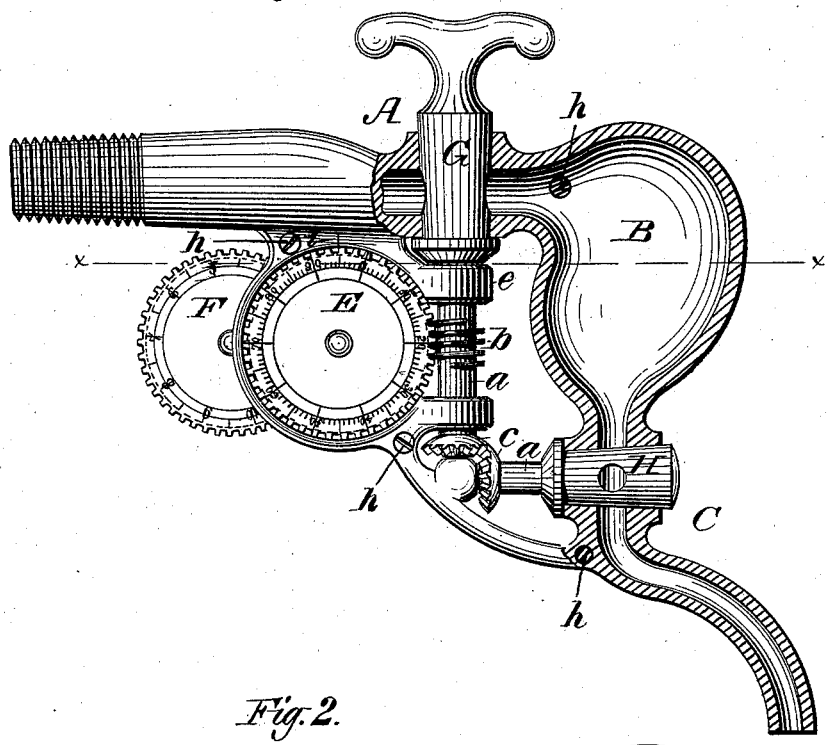
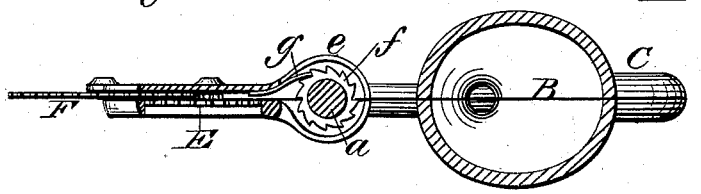


Fig. 2.



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FRANÇOIS X. ROUSSEAU, OF ARTHABASKAVILLE, QUEBEC, CANADA.

IMPROVEMENT IN MEASURING-FAUCETS.

Specification forming part of Letters Patent No. **205,302**, dated June 25, 1878; application filed December 17, 1877.

To all whom it may concern:

Be it known that I, FRANÇOIS X. ROUSSEAU, of Arthabaskaville, in the Province of Quebec and Dominion of Canada, have invented certain Improvements in Measuring-Faucets, of which the following is a specification:

My invention relates to faucets adapted for delivering a fluid in given quantities at a time, and for registering the amount discharged; and consists in the peculiarities of construction hereinafter described.

In the accompanying drawing, Figure 1 represents a side elevation of my improved device, partially in section; and Fig. 2, a section on the line *x x* of Fig. 1.

In constructing my improved device I provide a faucet, A, having the usual threaded portion to enter the cask, and a plug, G, to open and close the passage through it; and directly in front of this plug I form a chamber, B, into which the liquid passes from the faucet A. At its lower end the chamber B is furnished with an opening, which is controlled by the plug H of a secondary faucet, C.

It will be seen that when thus constructed the chamber B may be filled by simply opening the faucet A; but in order to prevent the escape of the liquid from the chamber while it is being filled, and in order that a sufficient quantity only to fill the chamber may be drawn at a time, it is necessary that the faucet C should be closed while the faucet A is open.

It will also be seen that the chamber B may be emptied by simply opening the faucet C; but in order to prevent the further entrance of liquid into the chamber B while emptying the same, the faucet A should be closed during this operation.

For the purpose of lessening the labor or the number of operations required in using this device, and to insure the simultaneous opening of one faucet upon the closing of the other, I connect the plugs of the two with each other, in the manner illustrated in Fig. 1, in which the plugs G and H are represented as furnished each with a stem, *a*, bearing upon its end a small pinion, *c*, said pinions being of corresponding size, and arranged to mesh with each other, whereby the turning of one plug and its stem *a* will cause the simultaneous turning of the other; and it will be seen that if the openings of the respective plugs be placed at right angles to each other and the two plugs be thus connected, the desired action will be produced, and in this way a fixed quantity will be drawn each time.

The chamber B will in each case be of proper size to contain a specified measure or quantity, or, if preferred, may be furnished with any suitable gage to show the quantity contained in the same; or it may be made of glass or similar transparent substance, having graduations marked thereon.

In order to register the exact amount of liquid drawn through the faucet A, I combine with the measuring-faucet above described, or with any other of similar construction, a recording device, consisting of a series of dials, E F, having each a series of graduations on its face, and so connected and arranged that a given number of revolutions of one shall cause one revolution of the other, as usual; and in order to operate the register, the dial E has teeth formed upon its periphery, with which engages a thread or worm, *b*, formed upon the stem *a* of the plug G. The pitch of the thread *b* and the distance of the teeth of the dial E from each other are so proportioned that one revolution of the plug G and its stem *a* will cause the dial E to move one space.

It will thus be seen that by turning the plug G in the proper direction to open the passage through it, the plug H will be caused to close the faucet C, and the chamber B will be filled. At the same time the worm or thread *b* will cause the dial E to move one-half a space, while by turning the plug G to close the opening through, and thus completing one revolution, the faucet C is opened to empty the chamber, and the dial E moved another half-space, thereby making an advance of one space each time the chamber B is filled. A mark, *i*, is made at some point on the frame within which the dial E is placed, from which to calculate the number of spaces.

In order that the plug G may not be turned backward to lessen the number of spaces indicated by the register, a ratchet, *f*, is secured upon the stem *a* of the plug, and prevented from turning backward by means of a spring detent or pawl, *g*, the two being inclosed in a

surrounding case, *e*, whereby the spring is concealed from the reach of instruments by which it might be held back to allow the backward rotation of the ratchet, stem, and plug. The dials E and F should also be attached to the frame or body of the faucet by means of rivets or similar non-removable devices, whereby their removal and change is prevented.

It will be observed that the frame or body of the entire faucet is divided centrally and longitudinally into two halves or parts, which are united by screws *h*, and which have recesses to form the chamber valve seats and bearings made in their adjacent faces. This construction admits of the whole body being cast in the two parts, renders the construction simple, and admits of the parts being quickly assembled.

Having thus described my invention, I claim—

1. The improved measuring-faucet consisting of the measuring chamber or body and the two valve-plugs G H, arranged at right angles to each other and provided with the pinions *c*, gearing directly into each other, as shown.

2. As an improvement in measuring-faucets, the plugs G H and the registering devices E F *f g*, in combination with the body, consisting of the two equal parts, constructed and arranged to embrace and hold the moving parts between their faces, as shown and described.

3. The valve-plug G, having its stem provided with the thread *b*, and ratchet-wheel *f*, in combination with the register-wheel and the divided frame, arranged to embrace and hold the other parts, as shown.

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