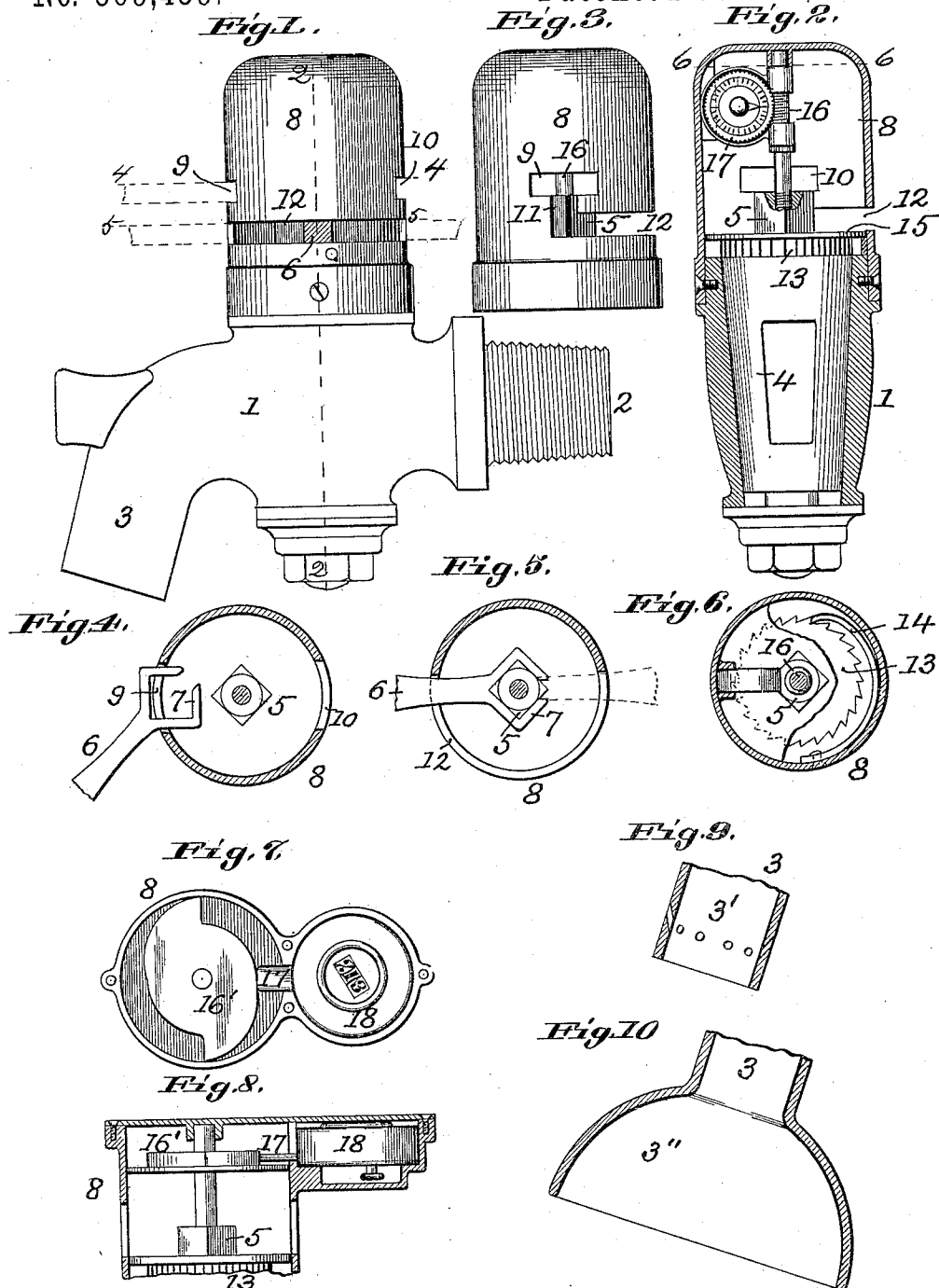


(No Model.)

C. VAN GRAAFEILAND.
REGISTERING FAUCET.

No. 569,439.

Patented Oct. 13, 1896.



Attest:
John Enders, Jr.
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UNITED STATES PATENT OFFICE.

CHARLES VAN GRAAFEILAND, OF ST. LOUIS, MISSOURI, ASSIGNOR TO
CAROLINE LUEDERS, OF SAME PLACE.

REGISTERING-FAUCET.

SPECIFICATION forming part of Letters Patent No. 569,439, dated October 13, 1896.

Application filed February 28, 1894. Serial No. 501,860. (No model.)

To all whom it may concern:

Be it known that I, CHARLES VAN GRAAFEILAND, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Registering-Faucets; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification.

The present invention relates to that class of registering appliances in which the amount of fluid abstracted from a given receptacle is automatically indicated and registered for future reference; and the object of the present improvement is to provide, in connection with the registering mechanism of a faucet, a safety-pathway for the operating-key, so that the movement of such key must be completed to effect a half-revolution of the faucet-plug and a registration of the same before such key can be removed for a subsequent operation of the faucet, all as will hereinafter more fully appear, and be more particularly pointed out in the claim. I attain such object by the construction and arrangement of parts illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a registering-faucet embodying my present invention; Fig. 2, a transverse section of the same at line 2 2, Fig. 1; Fig. 3, an elevation of the inclosing casing of the operating and registering mechanism at right angles to the position illustrated in Fig. 1; Figs. 4, 5, and 6, horizontal sections at lines 4 4, 5 5, and 6 6, Figs. 1 and 2, respectively; Fig. 7, a plan view of a modified form of the registering mechanism, the top of the casing being removed; Fig. 8, a detail side elevation of the same with the inclosing casing in section, and Figs. 9 and 10 detail sections of the outlet-nozzle of the faucet.

Similar numerals of reference indicate like parts in the several views.

Referring to the drawings, 1 represents the faucet-body, having at one end an attaching means, such as a tapering screw-threaded neck 2, at the other end a downturned outlet-nozzle 3, and provided with the usual straight-

way revoluble member or plug 4, having at its upper end a non-circular shank 5, preferably of a square form, by which it is rotated through the instrumentality of a key or spanner 6, which in the present invention is formed with a straight handle portion and an open-sided socket end 7, adapted to engage over the squared shank 5 of the faucet-plug.

While a plain outlet-nozzle 3, as shown in Fig. 1, may be employed with my present improved registering mechanism, it is preferable to make the same of a non-impedable nature, so that the operator cannot stop the flow with his hand or fingers in the attempt to fill succeeding vessels without the regular manipulation of the faucet-plug and registering mechanism, any attempt in this direction being indicated by a wastage of the liquid upon the floor. This non-impedable nature of the outlet-nozzle may be imparted thereto by means of a series of oblique perforations 3' in said nozzle, as shown in Fig. 9, or by a bell-shaped mouth 3'', as indicated in Fig. 10. With either of these forms of non-impedable nozzle it is intended that the nozzle shall be introduced sufficiently far into the receiving vessel to catch the irregular discharge of liquid from such type of nozzles.

8 is an inclosing casing surrounding the upper end of the faucet-plug and forming also an inclosing housing for the registering mechanism of the present invention. This casing is provided with two oppositely-arranged orifices 9 and 10 for the respective entrance and withdrawal of the operating-key 6, and for this purpose these orifices are arranged in a plane above the top of the squared shank 5 of the faucet-plug.

11 are vertical slits connecting the orifices 9 and 10 with a semicircular opening 12, formed in one side of the casing in a plane below that of the orifices 9 and 10 and on a plane with the body portion of the squared operating-shank 5 of the faucet-plug.

13 is a ratchet-disk secured to the faucet-plug, that is engaged by a spring ratchet-dog 14 to prevent the movement of such plug in more than one direction and thus prevent a reversal of the registering mechanism and a tampering with the record made thereby. In

the construction shown this ratchet mechanism is shown at the base of the squared shank 5 and protected by a disk or cover 15.

The registering mechanism may consist of
 5 the usual endless screw 16, turning with the faucet-plug and engaging with and driving the endless worm-wheel 17, which by means of the dial and pointer, as shown in Fig. 2, will make register of the number of times the
 10 faucet has been used. A modified form of such registering mechanism is shown in Figs. 7 and 8, in which an axial shaft turning with the faucet-plug carries a double-pointed cam 16', that at its half-revolution imparts a reciprocating movement to the operating-bar
 15 17 of a train of registering gears of the register 18.

The operation of my improved mechanism is as follows: The key or wrench 6 is inserted
 20 through the entrance-orifice 9 past the axial shaft of the registering mechanism and down over the squared shank 5 of the faucet-plug, the vertical slit 11 permitting of such downward movement of the handle portion of the
 25 key. The key is now in line with the semi-circular opening 12 in the guard-casing and is capable of radial motion therein to first open the faucet and subsequently close the same. The pawl mechanism heretofore de-

scribed prevents a retrograde motion, and the key is compelled to move toward the withdrawal-orifice 10 before it can be removed for another manipulation of the faucet, its removal being accomplished in a manner the reverse of its entrance, to wit: up through a
 35 vertical slit 11, so as to release the squared shank of the faucet, and out through the withdrawal-opening 10.

Having thus fully described my said invention, what I claim, and desire to secure by
 40 Letters Patent, is—

In an automatic registering-faucet, the combination of the revoluble faucet-plug, a registering mechanism actuated thereby, and a casing inclosing the same, and having an
 45 opening in its side for the entrance of the operating-key, said opening consisting of a semi-circular opening 12, and entrance and withdrawal orifices 9 and 10, connected to the respective ends of the opening 12, by vertical
 50 slits 11, substantially as set forth.

In testimony whereof witness my hand this 17th day of February, 1894.

CHAS. VAN GRAAFEILAND

In presence of—

JULIUS J. KOCH,
 C. LUEDERS.