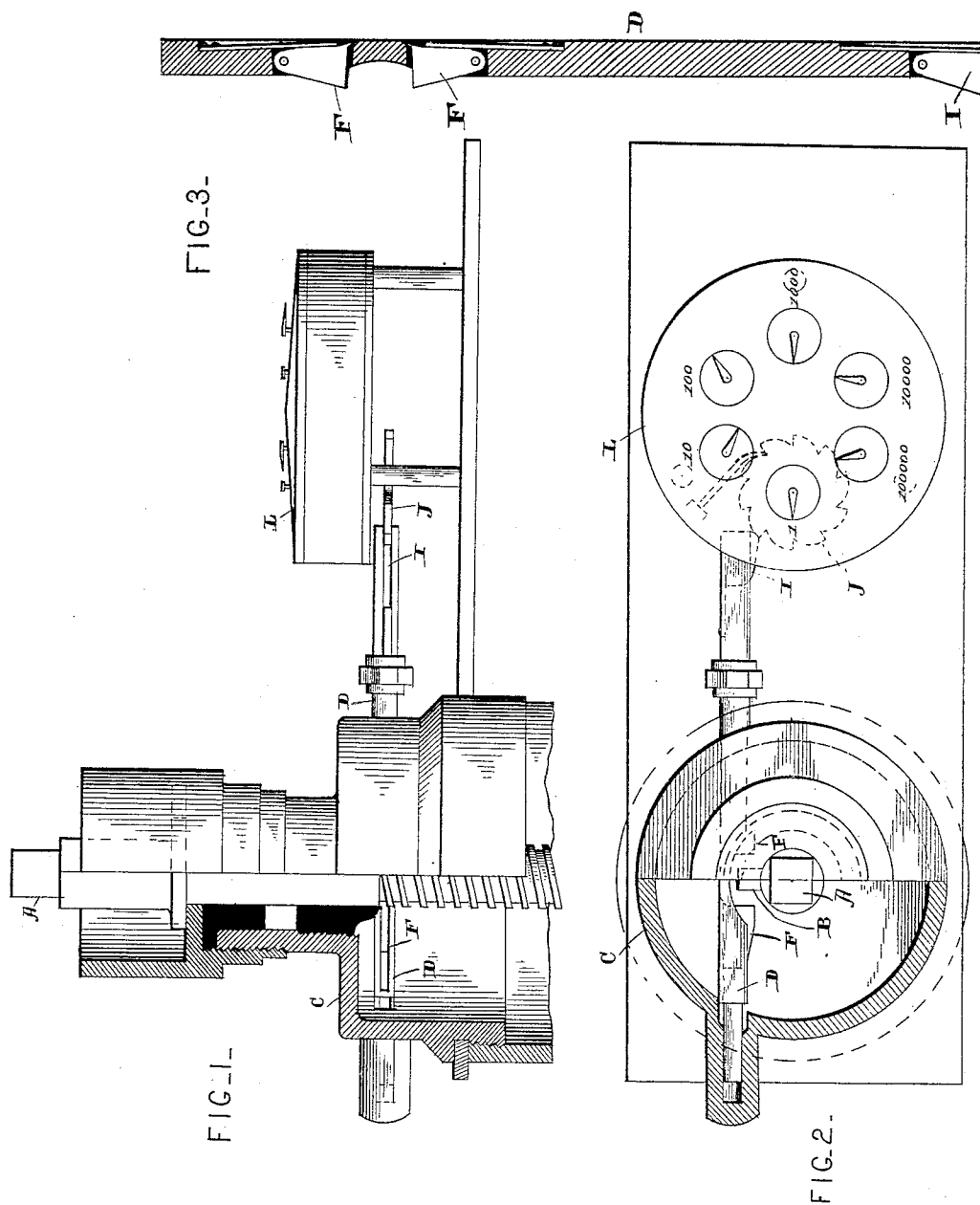


(No Model.)

J. W. DORGAN.
VALVE REGISTER.

No. 477,742.

Patented June 28, 1892.



WITNESSES

Geo. C. Frick.
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INVENTOR_

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UNITED STATES PATENT OFFICE.

JOHN W. DORGAN, OF COLUMBUS, OHIO.

VALVE-REGISTER.

SPECIFICATION forming part of Letters Patent No. 477,742, dated June 28, 1892.

Application filed May 7, 1891. Serial No. 391,947. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. DORGAN, of Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Valve-Registers; and I do hereby 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in valve-registers; and it consists in a valve-stem provided with a projection, combined with an endwise-moving rod provided with spring-actuated dogs and a registering mechanism, as will be more fully described hereinafter.

The object of my invention is to provide a valve-register which is to be applied to hydrants where water is obtained for sprinkling the streets, and which registers the number of wagon-loads used.

Referring to the accompanying drawings, Figure 1 is a side elevation of my improved register, shown partly in section. Fig. 2 is a plan view of the same, partly in section. Fig. 3 is a detail view of the longitudinally-movable rod and the dogs carried thereby.

A represents an ordinary valve-stem, which is provided with a projection B. Passing through the casing C at right angles to the stem A is an endwise-moving rod or piston D, which is recessed sufficiently upon its inner side to allow the projection B to revolve freely around in either direction. Placed in recesses at each end of this recessed portion are the spring-actuated dogs F, against which the projection B strikes for the purpose of moving the rod or piston D back and forth. These dogs are turned in opposite directions, so that when the stem is turned for the purpose of opening the hydrant it will operate one of the dogs for the purpose of forcing the rod endwise, but will not affect the other dog, so as to move the rod until the stem is reversed for the purpose of closing the hydrant, and then the rod is moved back to its first position. After the projection B has acted upon one of the dogs, so as to force the rod or piston endwise,

the projection operates the other dog each time the stem is revolved; but the dog is simply made to move out of the way of the projection and the rod is not affected. When the movement of the valve-stem is reversed, however, the projection strikes against the inner end of the dog that was not acted upon at first for the purpose of moving the rod endwise.

To the outer end of the rod or piston D is attached the spring-actuated dog I also, which engages with a ratchet J, connected with the registering mechanism L, and thus causes each outward movement of the rod or piston to operate the register. Each time that the hydrant is opened for the purpose of drawing water for the street-sprinklers the register L is operated, and this register shows at a glance the number of wagon-loads of water that have been drawn.

By means of the register here shown and described a registration is kept of the number of times the valve has been opened. Presuming that the valve is opened once for each load of water drawn for sprinkling the streets, the exact number of such loads can be ascertained at any time. The rod or piston is here shown placed in a pipe or tube, which is especially constructed for its reception; but I do not wish to limit myself to any particular form of casing for the said rod.

Having thus described my invention, I claim—

1. The combination of the valve-casing, the rotary valve-stem therein having the radial lug, the tubular bearing extending transversely through the casing beside and at right angles to said stem, a registering mechanism having a ratchet-wheel, and the rod confined to reciprocate in said bearing having a spring-pawl mounted in its outer end to operate said ratchet-wheel, and the two opposite spring-pawls mounted in the rod and projecting into the path of said lug, combined and arranged to operate as set forth.

2. The combination of a valve-casing, a rotary valve-stem therein having the radial lug, the reciprocating rod transversely located in said casing beside the valve-stem, with its

outer end projecting from the casing and
provided with a spring-pawl, the registering
mechanism operated by said pawl, said rod
having a side recess beside said stem, and the
5 two opposite spring-pawls extending into the
path of said lug and mounted in the rod at
said recess with a space between their ends,
arranged to operate as set forth.

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

JOHN W. DORGAN.

Witnesses:

J. S. GOLD,
W. D. TURNER.