B. D. PEASE & R. CAMPBELL.

Hydrant.

No. 169,288. Patented Oct. 26, 1875.

Fig. 1.

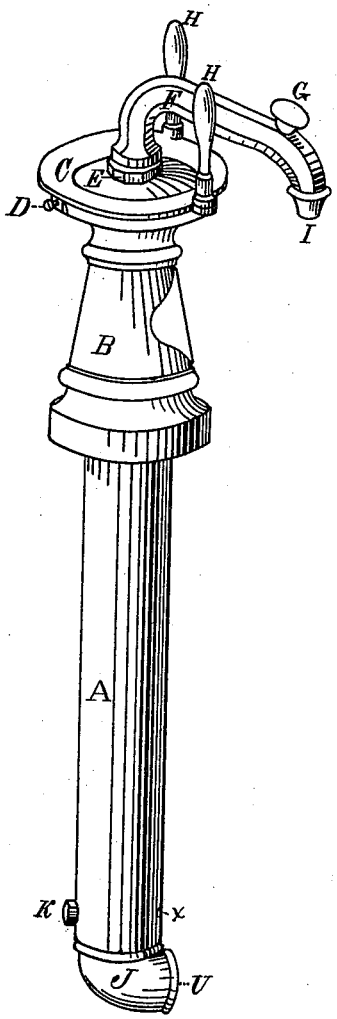
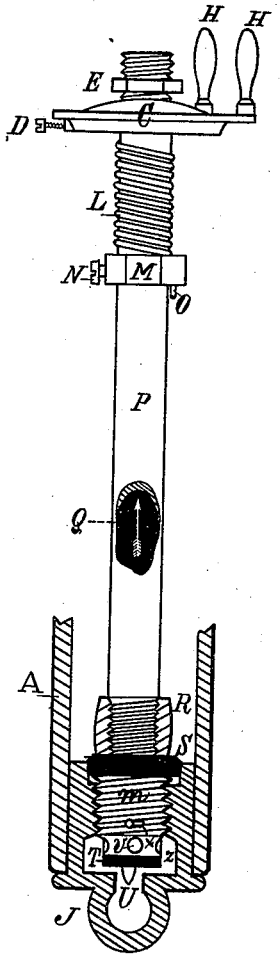


Fig. 2.



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UNITED STATES PATENT OFFICE.

BUEL D. PEASE AND ROBERT CAMPBELL, OF COHOES, NEW YORK.

IMPROVEMENT IN HYDRANTS.

Specification forming part of Letters Patent No. **169,288**, dated October 26, 1875; application filed May 17, 1875.

To all whom it may concern:

Be it known that we, BUEL D. PEASE and ROBERT CAMPBELL, of Cohoes, in the county of Albany, State of New York, have invented a certain new and useful Improvement in Hydrants, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which our invention appertains to make and use the same, reference being had to the accompanying drawing forming a part of this specification, in which—

Figure 1 is an isometrical perspective view, and Fig. 2 a vertical sectional view.

Like letters of reference indicate corresponding parts in the different figures of the drawing.

Our invention relates to that class of hydrants which are automatic or self-closing; and consists in a novel construction and arrangement of the parts, as hereinafter more fully set forth and claimed, by which a simpler, more durable, and effective device of this character is produced.

The nature and operation of our improvement will be readily obvious to any conversant with such matters from the following description:

In the drawing, A represents the casing, or that portion of the hydrant which, in use, is usually located below the surface of the ground; and B, the body, or that portion which is designed to be located above the ground, these parts being threaded and screwed together, or coupled in any convenient manner. Disposed in the lower end of the casing there is a tubular plug, J, in the form of an ordinary quarter-turn, having the conduit or opening U, and also a connected chamber, *z*. This plug is secured in the lower part of the casing by means of the set-screw K, and is interiorly threaded in its upper section to receive the screw plug-valve *m*. The valve, which is hollow, and provided at its lower end with the packing T, has a series of lateral openings, Y, communicating with the tube P, which is secured in its upper end, and prevented from turning therein by means of a rivet or set-screw. (Not shown.) The upper section of the plug J is counterbored to form a seat for the packing-ring S, which is maintained in position over the plug *m* by the screw thimble or nut R. Secured to the body B by the set-screw D there is an annular cap, C, provided on its upper side with the vertically-arranged stops H H, and with a central opening, through which the pipe P extends, the bent nozzle F being secured to the upper end of the pipe. Disposed on the pipe P, and firmly secured thereto by means of the set-screw N, there is a collet, M, and around the pipe, between this collet and the under side of the cap C, there is a coiled spring, L, one end of which is secured in the cap, and the other in the collet at O. This collet is so arranged on the pipe and secured that the spring will act torsionally to turn the pipe and screw the plug-valve *m* in or downwardly, thus bringing the packing T upon its seat, and closing the passage from the opening U to the chamber *z* automatically, the pipe being turned by the spring until the nozzle F strikes one of the stops H, which should be coincident with the perfect closing of the passage.

In the use of our improved hydrant it will be seen that when the nozzle F is against one of the stops, as shown in Fig. 1, being kept so by the spring, as described, if the nozzle is then swung around until it strikes the opposite stop, the plug-valve *m* will be unscrewed, and the packing T elevated from its seat, permitting the water to flow into the chamber *z*, and through the openings *v*, pipe P, and nozzle F, and that when the nozzle is released the valve *m* will be closed automatically by the action of the spring L.

It will also be obvious that when the valve *m* closes, the pipe P will be left filled, and that if its contents should be allowed to remain the hydrant would be liable to freeze and burst in cold weather. To prevent this we make use of an orifice, *x*, extending from the interior of the plug *m* through the walls of the plug J and casing A, the orifice in the plug *m* being so arranged that when the valve is closed it will coincide with those in the plug J and casing A, thus forming a "drip," by means of which the pipe P will empty itself whenever the hydrant is closed.

A hydrant constructed as described may very readily be detached from the aqueduct-pipe, for the purpose of repairing or other-

ise, by disconnecting the body B from the sing A, and the pipe P from the valve *m*, ithout the usual trouble and expense of ex- vating for that purpose.

Having thus explained our invention, what e claim is—

The improved hydrant described, consist- g of the pipe P, provided with the nozzle F, ring L, and collet M, the hollow plug-valve , provided with the openings Y, the plug J, provided with the conduit U and chamber *z*, and the casing A, body B, and cap C, provided with the stops H H, constructed and arranged to operate substantially as and for the purpose specified.

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