(No Model.)

# J. SCHUSTER.

## HYDRANT.

No. 406,149. Patented July 2, 1889.

Fig. 1.

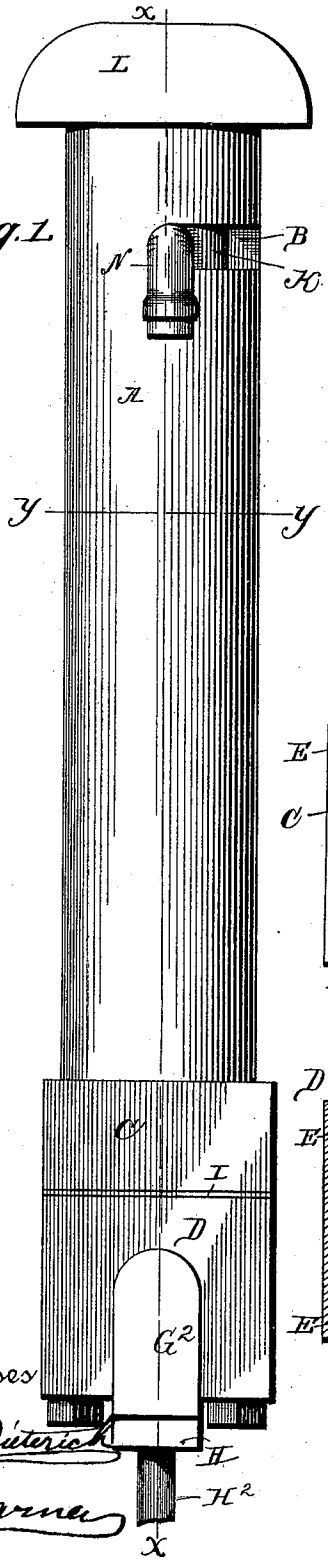



Fig. 2.

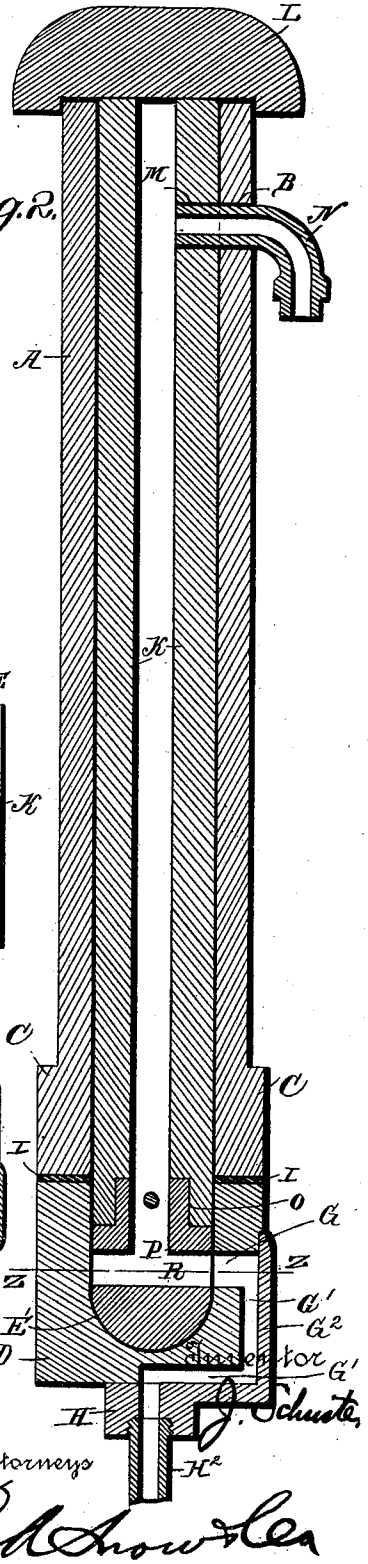



Fig. 3.

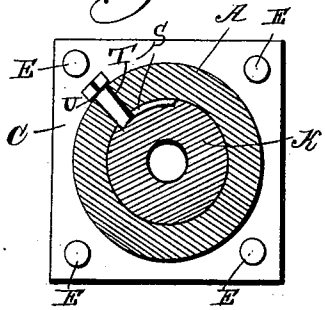
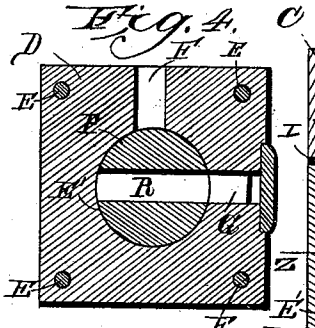



Fig. 4.




Witnesses

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# UNITED STATES PATENT OFFICE.

JACOB SCHUSTER, OF ST. CLAIR, PENNSYLVANIA.

## HYDRANT.

SPECIFICATION forming part of Letters Patent No. 406,149, dated July 2, 1889.

Application filed June 5, 1888. Serial No. 276,109. (No model.)

*To all whom it may concern:*

Be it known that I, JACOB SCHUSTER, a citizen of the United States, residing at St. Clair, in the county of Schuylkill and State of Pennsylvania, have invented a new and useful Improvement in Hydrants, of which the following is a specification.

My invention relates to an improvement in hydrants; and it consists in the peculiar construction and combination of devices that will be more fully set forth hereinafter, and particularly pointed out in the claim.

In the accompanying drawings, Figure 1 is a front elevation of a hydrant embodying my improvements. Fig. 2 is a vertical sectional view of the same, taken on the line *x x* of Fig. 1. Fig. 3 is a transverse sectional view of the same, taken on the line *y y* of Fig. 1. Fig. 4 is a transverse sectional view of the same, taken on the line *z z* of Fig. 2.

A represents the stock of the hydrant, which is provided with a cylindrical bore and has near its upper end a quarter-circular transverse slot B. The upper and lower ends of the stock are open, and the lower end thereof is square on its outer side to form a projecting flange C.

D represents a block which is arranged on the lower end of the stock and is secured thereto by bolt-rods E, which extend through openings in the corners of the flange and of the block. In the center of the block, in the upper side thereof, is a concave recess or valve-seat E′. Communicating with one side of the valve-seat is an opening F, which extends directly through one side of the block and has its other end open, and also communicating with the valve-seat, and extending therefrom at an angle of ninety degrees from the opening F is a channel G, which has an extension G′ cut in the side and bottom of the block and covered by an angular plate $G^2$, so as to form a channel through which the water enters from the supply-pipe $H^2$, which is coupled to a collar H, formed upon the plate $G^2$.

A washer I, of india-rubber, leather, or other suitable material, is inserted between the lower end of the stock and the upper side of the block, so as to effect a water-tight joint between the said stock and the said block.

K represents a hollow piston or plug, which is arranged in the bore of the stock and is provided at its upper end with a circular convex cap L, which also fits on the upper end of the stock and is adapted to be grasped so as to enable the tube or plug to be turned in the bore of the stock. The said tube or plug is provided with a longitudinal bore, the upper end of which communicates with an opening M, that registers with the slot B and is adapted for the insertion of the inner end of a discharge-spout N, the said spout working in the slot B. The lower end of the tubular piston or plug is provided with a countersunk annular recess O, which is concentric with the bore, and in the said recess is fitted the upper end of a valve P, said valve being arranged in the valve-seat E′, having a central longitudinal opening which communicates with the bore of the piston or plug, and being provided with a transverse opening R, which is adapted to communicate alternately with the opening F and the upper end of channel G.

In the outer side of the piston or plug, at a suitable distance from the upper end thereof, is a quarter-circular recess S, which registers with an opening T in one side of the pump-stock, and a plug U is inserted in the said opening and has its inner end engaging the recess, the function of the said plug and recess being to limit the rotary motion of the plug or piston.

The operation of my invention is as follows: When the piston or plug K is turned so as to cause the opening R to register with the channel G, the water is caused to flow upward through the bore of the tubular piston and to be discharged through the spout. When the said piston is turned so as to cause the opening R to register with the opening F, the supply of water to the hydrant is cut off and the water remaining in the piston is caused to escape through the valve and through the opening F, thereby preventing the hydrant from freezing and preventing the water from stagnating therein.

The head or cap L is flanged down upon the cylindrical stock, so that it turns snugly thereon, and the cap and seat E′ together prevent longitudinal displacement of the piston.

Having thus described my invention, I claim—

The combination, with the valve having the transverse channel and vertical opening, of the valve seat or block having the laterally-extending channels F G and the extension G′ of the latter formed by recesses in the side and bottom of the seat or block, the angular covering-plate $G^2$, having collar H, and the supply-pipe coupled to said collar, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

JACOB SCHUSTER.

Witnesses:
EHRHART FIEDLER,
RICHARD A. SCHUSTER.