

J. A. AYRES.  
FAUCET.

No. 183,037.

Patented Oct. 10, 1876.

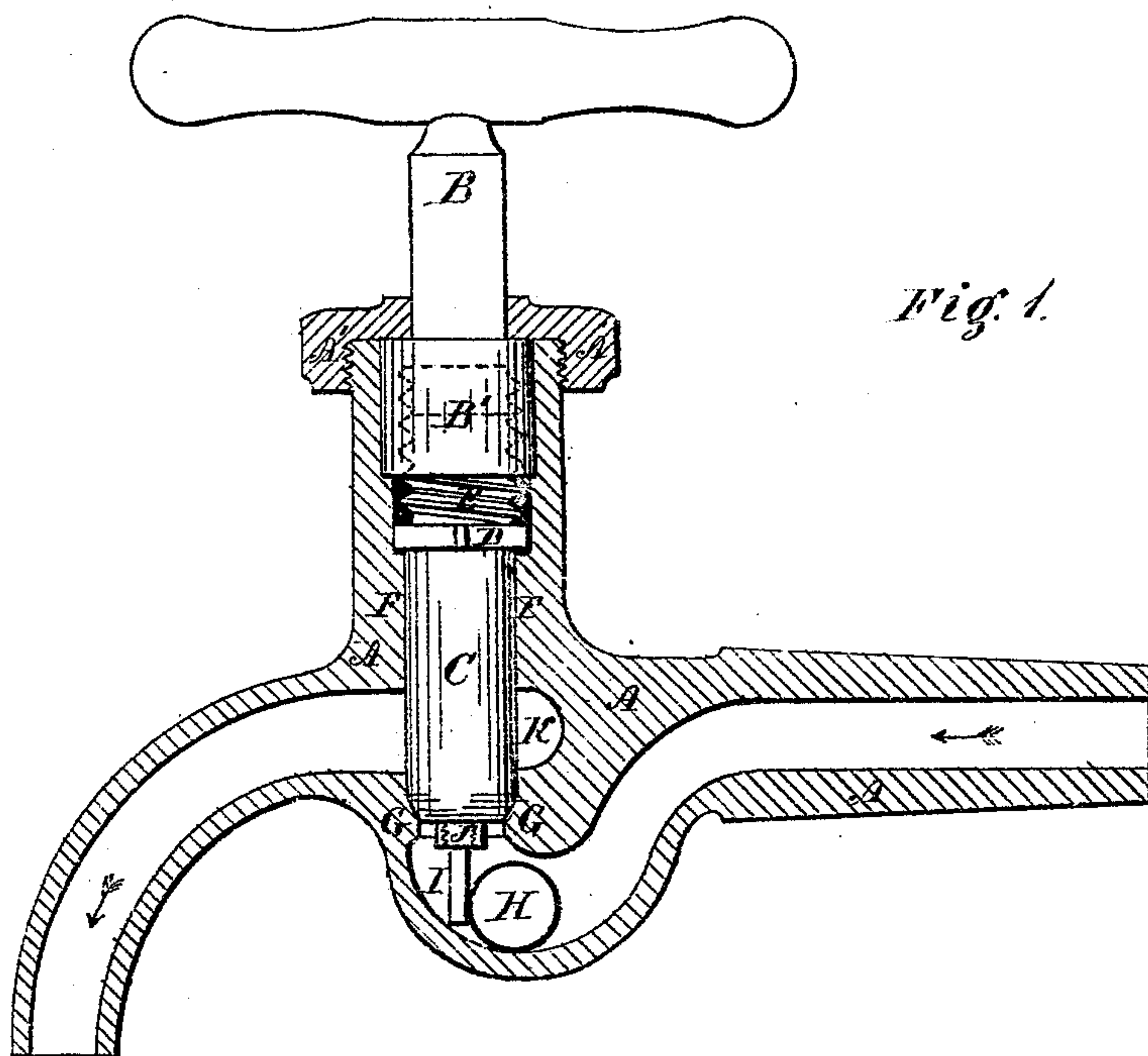
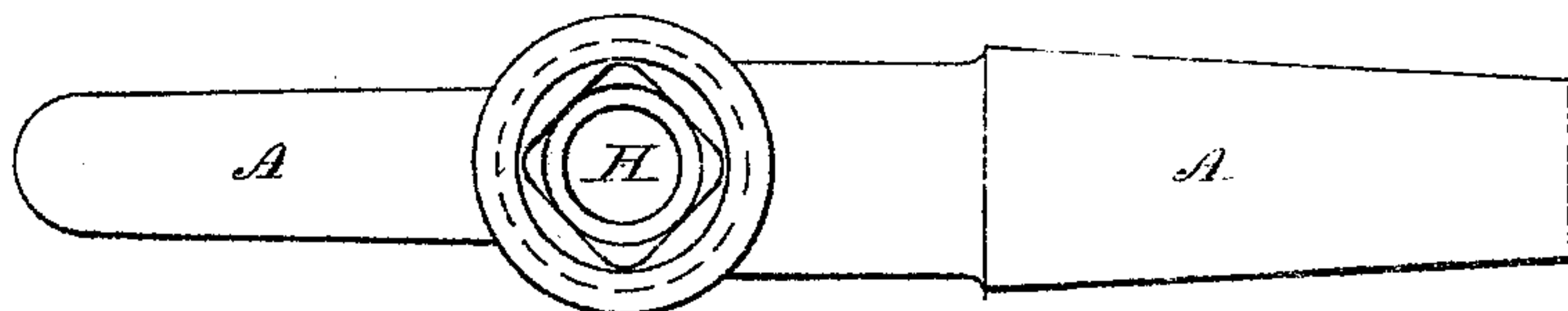


Fig. 1.

Fig. 2.



WITNESSES.

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# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN FAUCETS.

Specification forming part of Letters Patent No. 183,037, dated October 10, 1876; application filed August 18, 1876.

*To all whom it may concern:*

Be it known that I, JARED A. AYRES, of Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Water-Faucets; and I do hereby declare that the following is a full, clear, and exact description thereof, whereby a person skilled in the art can make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Like letters in the figures indicate the same parts.

My invention relates to faucets or cocks, such as are usually employed to draw water from the delivery-pipes in a system of water-supply.

The object of my invention is to provide a faucet which shall be simple in its construction and not liable to get out of repair, and at the same time possess the additional advantages of permitting the plunger to be removed from its socket without shutting off the water from the pipe, and of not requiring any other packing than the plunger to prevent leakage around the handle.

My invention consists in the peculiar construction and arrangement of these several parts, as will be hereinafter described.

In the accompanying drawing, Figure 1 is a vertical section through the middle of the faucet. Fig. 2 is a top view, with the plunger removed, so as to show the interior parts.

A is the body of the faucet, through which the water flows in the direction of the arrow when the cock is opened. B is the handle, the stem of which passes through the cap A', and is formed into a hollow cylindrical portion below, fitted with an interior screw-thread, as shown at B' in Fig. 1. C is a cylindrical plunger, rounded at the lower end to enter the valve-seat. It is made of rubber or other suitable material, and is fitted on the stem I, which passes through it, and upon which it is secured by means of the small nut J. At the upper end of the plunger C is the square D upon the stem I. This moves up and down in a flat-sided groove in the body of the faucet, so as to prevent it and the plunger from turning. Above the square plate D is a screw, E, which

enters into the hollow thread in B', and by which the plunger is raised and lowered when the handle B is turned.

The plunger C passes through a contraction in the body of the faucet at F, which fits it tightly, so as to prevent the escape of water upward. There is also a contraction at G, forming a seat for the lower end of the plunger. Just above this is a cylindrical part of the socket, into which the plunger fits like a cork. H is a ball of rubber, or other suitable material, which lies in the water-channel, and is held back by the stem I when the plunger is in the faucet, but which is pressed upward against the valve-seat at G, and stops the flow when the plunger is withdrawn from the faucet.

When the ball is in the position shown in the drawing, the water passes around it in flowing through the cock. In the body of the faucet is a channel, K, surrounding the plunger and communicating with the outlet to facilitate the discharge when the plunger is raised.

The operation of my invention is as follows: When the plunger C is raised by turning the handle, the water flows through the faucet upward through the opening G and out at the spout, the contraction at F preventing any water from finding its way upward through the opening for the handle. When the plunger is turned downward by the handle it enters the opening in the bottom of the socket, and rests upon the valve-seat at G. As it becomes slightly compressed endwise, it expands laterally, and fills the socket above the seat tightly, so that no water can escape through the faucet. When it is desired to remove the plunger to replace the packing, or for any other purpose, the top nut A' is unscrewed, and the handle and plunger are drawn out. The ball H then presses up against the valve-seat G, and stops the flow until the plunger is replaced, when the stem I pushes the ball aside to where the water can flow around it.

What I claim as my invention is—

1. The compressible cylindrical plunger C, passing through a contraction above the water-way of a faucet, and forming a valve below for the letting on or shutting off of the water, substantially as herein described.



2. The ball H, lying loose in the water-way, in combination with the stem I of the plunger and the valve-seat G, to operate as a stop-valve when the plunger is withdrawn, substantially as herein described.

3. The combination of the hollow screw B' upon the handle with the screw E, the square

D, and the plunger C, substantially as herein described.

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Witnesses:

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