(No Model.)

J. B. HAWKINS.

HYDRANT.

No. 387,590. Patented Aug. 7, 1888.

Fig. 1.

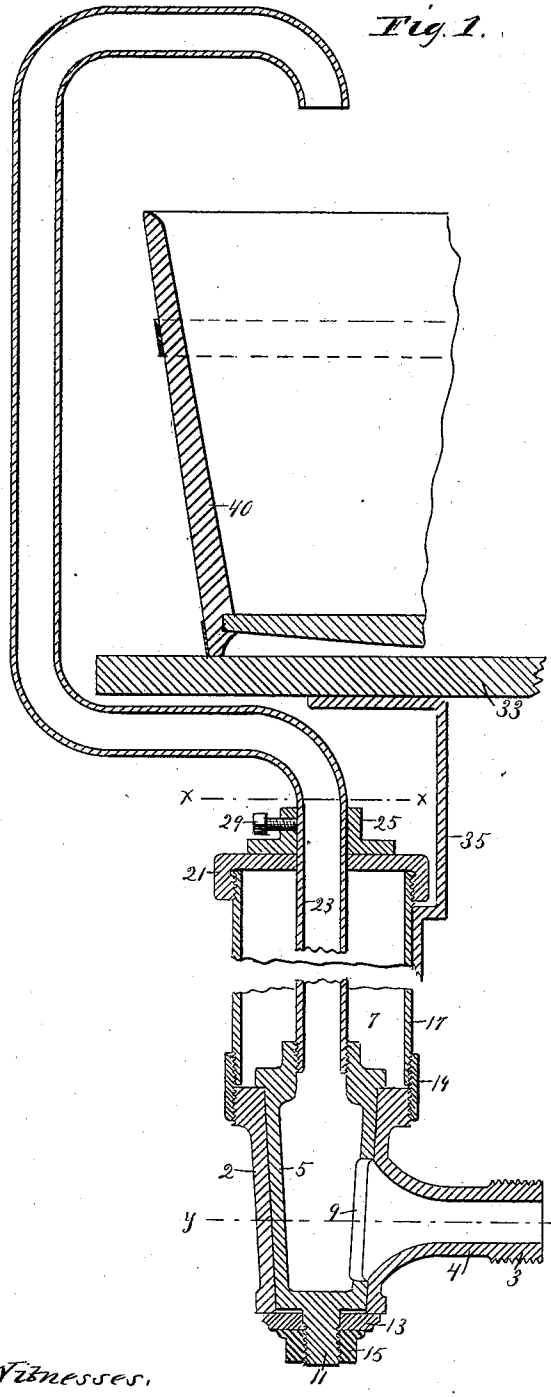


Fig. 2.

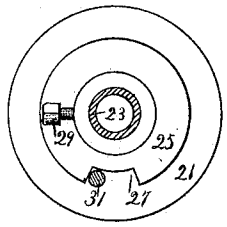


Fig. 3.

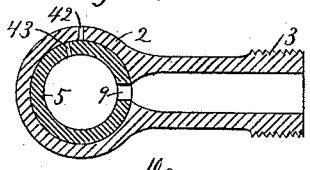
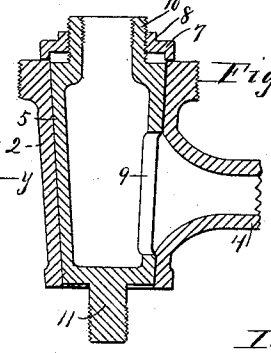


Fig. 4.



Witnesses,
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A. M. Gaskell.

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By R. W. Paul Atty.

UNITED STATES PATENT OFFICE.

JOSEPH B. HAWKINS, OF MINNEAPOLIS, MINNESOTA, ASSIGNOR TO JOHN S. GLASGOW AND GUY HAWKINS, BOTH OF SAME PLACE.

HYDRANT.

SPECIFICATION forming part of Letters Patent No. 387,590, dated August 7, 1888.

Application filed May 13, 1887. Serial No. 238,035. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH B. HAWKINS, of Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Hydrants, of which the following is a specification.

This invention relates, generally, to improvements in hydrants that are designed to be connected to the service-pipes of city water-works and used for supplying water whenever desired.

The object of my invention is to provide a hydrant of this class that may be operated to turn on or off the water by a slight movement of the supply-pipe itself.

Other objects of the invention will appear from the following detailed description, taken in connection with the accompanying drawings, in which—

Figure 1 is a vertical section of a hydrant embodying my invention, a portion of the pipe being broken away. Fig. 2 is a horizontal section on line X X of Fig. 1. Fig. 3 is a horizontal section on line Y Y of Fig. 1. Fig. 4 is a section of the plug, showing the adjustable shoulder.

In the drawings, 2 represents the body of the faucet or casing, which is provided with an inlet-tube, 4, formed integrally therewith and having a threaded end, 3, by which it may be connected to the service-pipe. The body of the casing is hollow and conical in shape and the inlet-tube communicates with the main portion of the casing through a narrow vertical slot, which is formed by narrowing and vertically extending the part of the body that forms the inlet and is connected to the service-pipe. A hollow valve, 5, fits into the body of the casing 2, and is provided with a shoulder, 7, that rests upon the upper edge thereof, and with a narrow vertical slot, 9, that is adapted to register with the inlet-opening of the casing.

The lower end of the valve is provided with a threaded projection, 11, and extends through a washer, 13, and is provided upon its end 11 with a nut, 15, by means of which the valve is held in place. The outer portion of the upper end of the casing 2 is provided with an external screw-thread, and a tube, 17, is secured thereto by means of a threaded connection, 19, which makes a tight joint between the upper end of the casing and the lower end of the tube 17. This tube 17 may be of any suitable length. In practice the casing will be placed in the ground below the frost-line, at a distance, for example, of nine feet, and the pipe 17 will extend just above the surface of the ground. The upper end of the pipe 17 is provided with a cap, 21, that is screwed thereon. A supply-pipe, 23, extends through a central opening in the cap 21, which forms a bearing therefor and has its lower end screwed into the top of the valve 5. A collar, 25, having a notch, 27, in its edge, is secured to the pipe 23 by a set-screw, 29. This collar rests upon the top of the cap 21. A pin, 31, is inserted into the top of the cap 21, within the notch 27, and limits the movement of the pipe 23. The casing 17, it will be seen, not only makes a water-tight covering for the pipe 23, but it also forms a support for the collar 25, and holds the pipe 23 exactly in line with the valve 5, so that it may be turned easily, even though it may be of considerable length.

The shoulder 7 on the upper part of the valve 5 bears upon the top wall of the casing and prevents the valve from being wedged into the casing so as to be incapable of turning. I prefer to provide a suitable shelf, 33, that may be secured to the pipe 17 by means of a bracket, 35, or other suitable device and extend over the top of the pipe 17, and to carry the upper portion under and then above the shelf 33, so that its open end comes over or very nearly over the portion of the pipe that extends through the tube 17. With this arrangement and construction a bucket, 40, or other receptacle may be placed on the top of the shelf 33, and the water be turned on by a slight movement of the pipe 23 without turning its discharging end away from the receptacle, and the water may also be shut off by a reverse movement of the pipe, and this also without turning its discharge end from its position over the receptacle on the shelf. I do not confine myself, however, to the use of the shelf 33, or to the exact shape shown for the upper end of the supply-pipe, whatever may be the shape of that portion of the pipe. As the inlet-opening of the casing is in the form of a

narrow vertical slot and the opening into the valve is of the same shape, the water may be cut off or turned on by a slight movement of the pipe 23, which will not carry its discharging end from over the top of a pail or other receptacle which may be placed under it. The body of the casing is preferably provided with a small opening, 42, with which an opening, 43, in the valve registers when the water is cut off to allow the water that may be in the pipe 23 to escape therefrom. The part of the inlet-tube on the casing which connects with the service-pipe is of the ordinary cylindrical form, and as it approaches the body of the casing it is narrowed and vertically extended, so that where it joins the casing it is in the form of a narrow vertical slot, but of substantially the same area as the other part of the opening.

In order that the shoulder 7 may not interfere with grinding the valve 5 farther into its socket, I prefer in some instances to form this shoulder on a separate ring, 8, that is adjustably secured upon an external screw-thread, 10, on the top of the valve, as shown in Fig. 4. As the parts become worn the ring may be moved so as to raise the shoulder from the top of the casing. The valve may then be ground farther into the casing and the shoulder brought against the top of the casing and made to form a bearing thereon that will prevent the valve from sticking in the casing.

I am aware that it is not new to provide a hydrant of this class with a hollow casing and a valve that is operated by the movement of the discharge-pipe; but in such hydrants the opening into the casing has been of the same size and shape as the end of the service-pipe, and hence it has been necessary to give the discharge-pipe a quarter-turn to shut off or let on the water. Other important differences of construction also exist between my device and those heretofore used.

I claim as my invention—

The combination, in a hydrant of the class described, of the hollow casing 2, provided with an external screw-thread on its upper end, the hollow plug 5, fitting into said casing, the discharge-pipe 23, secured to said valve, the tube 17, secured to said casing and forming a tight joint therewith, the cap 21, secured to the upper end of said tube 17 and forming a bearing for said pipe 23, the pin 31 in the said cap, and the collar 25, having the notch 27, secured to said pipe 23 by the set-screw 29, all substantially as described.

In testimony whereof I have hereunto set my hand this 6th day of May, 1887.

JOSEPH B. HAWKINS.

In presence of—
R. H. SANFORD,
A. M. GASKELL.