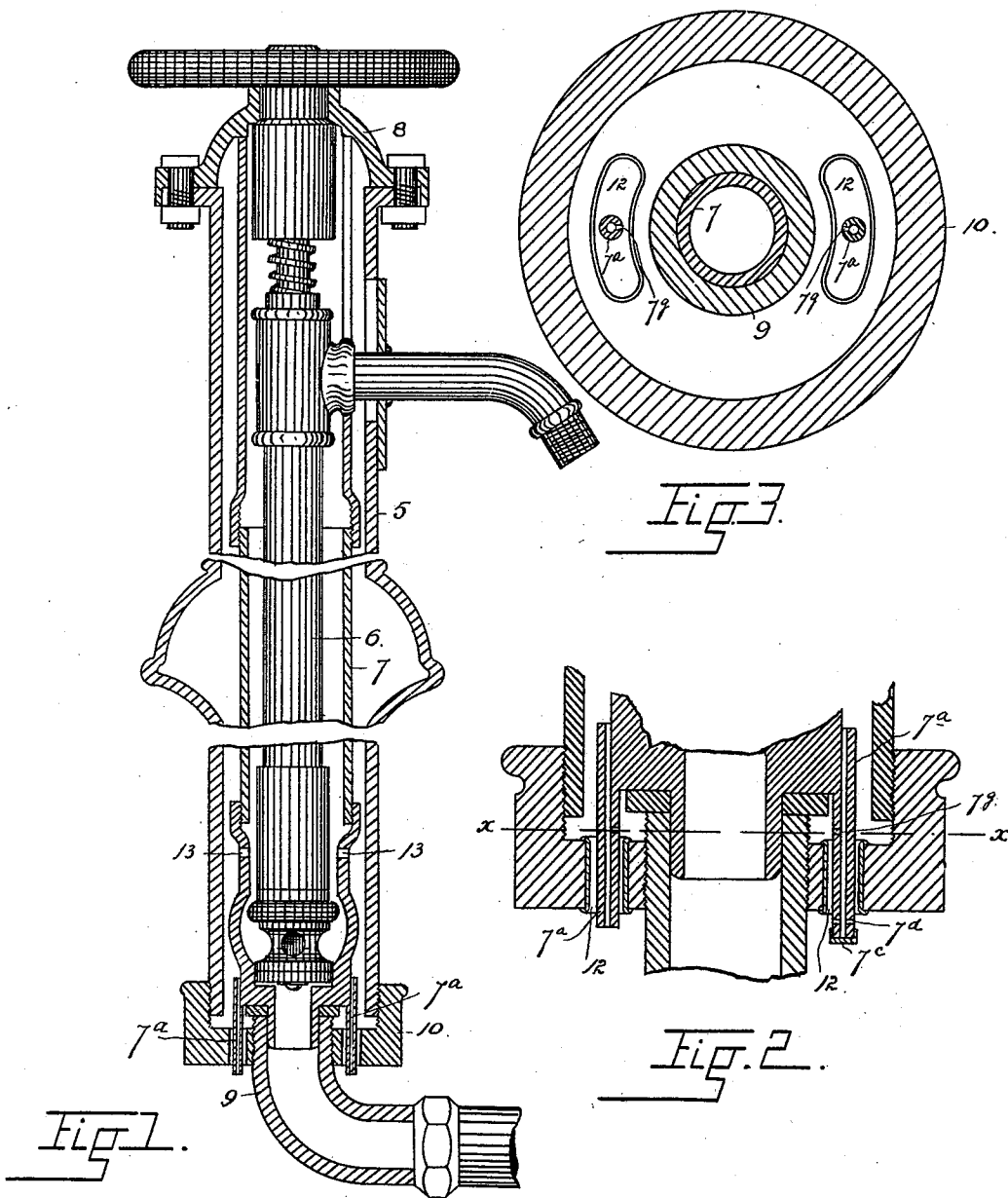


(No Model.)

R. A. BROOKS.
HYDRANT.

No. 519,660.

Patented May 8, 1894.



WITNESSES:

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ROBERT A. BROOKS, OF DENVER, COLORADO.

HYDRANT.

SPECIFICATION forming part of Letters Patent No. 519,660, dated May 8, 1894.

Application filed July 12, 1893. Serial No. 480,196. (No model.)

To all whom it may concern:

Be it known that I, ROBERT A. BROOKS, a citizen of the United States of America, residing at Denver, in the county of Arapahoe and State of Colorado, have invented certain new and useful Improvements in Hydrants; and I do 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 appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in hydrants of the class described in Letters Patent of the United States No. 432,378, issued to me on the 28th day of March, 1893. In this class of hydrants there is an outer stationary casing, an inner valve pipe through which the water passes, and an intermediate pipe carrying the valve seat, the two pipes last named being removable from the casing by taking off the cap. One difficulty with this class of hydrants is, that the waste holes in the casing are liable to become stopped, in which event much difficulty is often experienced in opening them; indeed it is often necessary to dig up the casing for this reason alone. The object of so constructing the hydrant that the valve pipe and the intermediate pipe are removable, is to facilitate the work of repairing the hydrant and obviate the necessity of digging up the casing. It will thus be seen that without some provision for opening the waste ports, the other advantages of this class of hydrants may amount to nothing. Hence the object of my present invention is to so improve this class of hydrants and street washers that the waste holes may be easily kept open, and whereby it will never be necessary to dig up the casing for this purpose. This object, I accomplish, by providing the intermediate pipe with depending projections which enter the waste holes when said pipe is in place, said holes being preferably elongated and much larger than the projections which enter them. It will thus be seen that by giving the intermediate pipe, when in position, a partial rotation, the waste ports may be cleared of any foreign particles of matter which may have

lodged therein. These projections which enter the wash ports are themselves apertured longitudinally, whereby they form tubes through which the waste water may pass after the ports in the casing are stopped. If the passage ways through these projections should be obstructed they may be cleared by lifting the intermediate pipe out of the casing, thus giving access to the tubes for the purpose stated.

My invention consists further of the features hereinafter described and claimed, all of which will be fully understood by reference to the accompanying drawings, in which is illustrated an embodiment thereof.

In the drawings, Figure 1 is a longitudinal, vertical section taken through the hydrant, the valve pipe being shown in elevation. Fig. 2 is a similar section taken through the lower part of the hydrant, the parts being shown on a larger scale. Fig. 3 is a horizontal section taken on the line $x-x$, Fig. 2.

Similar reference characters indicating corresponding parts or elements of the mechanism in the several views, let the numeral 5 designate the outer casing, 6 the inner valve pipe and 7 the intermediate pipe carrying the valve seat. The upper extremity of the pipe 7 engages a shoulder formed on the cap 8 which is fastened to the casing, while the lower extremity dips into the upper end of the supply conduit 9 which is screwed into the base 10 of the casing. This base 10 is provided with waste ports 12 which afford an escape for the water from pipe 6 when this valve is closed, said water passing first through apertures 13 formed in pipe 7. The lower extremity of pipe 7 is provided with tubular projections 7^a which are preferably formed integral therewith. These projections have a double function, namely, the keeping of said ports open and at the same time affording an escape for the waste water when the ports 12 are closed. These last named ports are preferably elongated and curved as shown in Fig. 3, thus affording ample room around the projections 7^a for the washer to pass when the ports are open. If, however, these ports should become closed they may be readily opened by giving the pipe 7 a partial rotation and moving the projections 7^a through the ports 12. As before

stated, however, the waste water may escape through these tubular projections even when the ports 12 are closed. The lower extremity of the tubular projections 7^a may be closed
5 by a cap 7^c as shown at the left in Fig. 3, while that portion of the tube which projects below the base of the casing is provided with horizontal apertures or escape ports 7^d. This construction may be preferable since the
10 opening at the lower extremity of the tube is more liable to become stopped or admit dirt to the tube, than the horizontal or lateral apertures.

In addition to the opening in the top of the
15 tubes 7^a, these tubes may be further provided with a lateral inlet aperture 7^e located above the apertures 12. These last named open-

ings are preferably brass lined to prevent any tendency to corrode or rust.

Having thus described my invention, what 20 I claim is—

In a hydrant, the combination of the outer casing having its base provided with waste ports, the inner valve pipe and the intermediate pipe carrying the valve seat, the last 25 named pipe being provided with tubular projections protruding through the waste port in the casing, substantially as described.

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

ROBERT A. BROOKS.

Witnesses:

G. J. ROLLANDET,
CHAS. E. DAWSON.