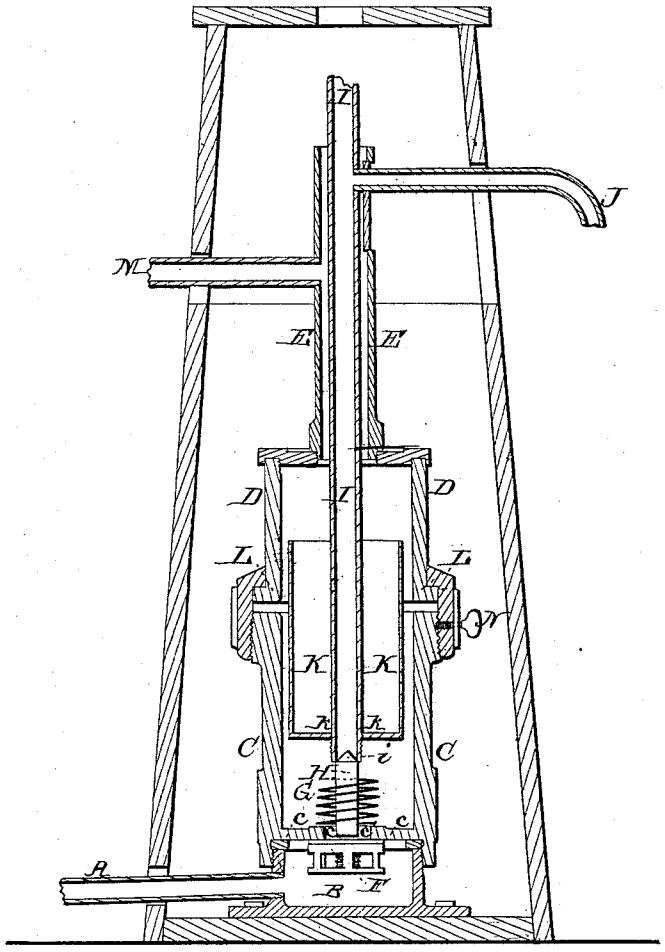
R. Reilly,

Hydrant,

No. 83,882. Patented Nov. 10, 1868.



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ROBERT REILLY, OF BALTIMORE, MARYLAND.

Letters Patent No. 83,882, *dated November* 10, 1868; *antedated October* 27, 1868.

IMPROVEMENT IN HYDRANTS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, ROBERT REILLY, of the city and county of Baltimore, and State of Maryland, have invented a new and improved Hydrant; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which my invention is represented by a vertical axial section.

This invention is a durable but simple and easily-operated hydrant, which can be detached and removed from the water-pipe by means of its own handle, and without the use of a wrench. It is constructed in a peculiar manner for convenience in taking it apart for repairs, and it is provided with an apparatus by which it indicates any leak within, and at the same time protects the working parts from dust and dirt.

In the drawings, A represents the water-pipe, and B, a small metallic chamber, with vertical cylindric walls, having an exterior screw-thread, into which the pipe A leads. The walls of the hydrant above the chamber B are composed of three parts, the lower, C, screwing down upon the walls of the chamber B, the middle, D, screwing upon the part C, and the upper, a vertical pipe, E, firmly fixed to the centre of the top of the part D, and extending upward to any desired height.

The part C is provided with a floor, *c*, having a central aperture, *c'*, through which, at the proper times, the water passes from chamber B.

F is a valve, seating upward against this floor, by the force of a spring, G, and provided with a stem, H, which extends up through the aperture *c'*, about one-third the height of the part C C.

I is a tubular plunger, resting on the valve-stem H, where its lower end is notched, as at *i*, or provided with holes, so that the water from the chamber C can at all times flow into it, and thence up and out at the discharge-pipe J. The plunger I passes through a cylindrical vessel, K, being firmly fixed by a screw-thread to the bottom of it, as shown at *k*. This cylinder rises and falls with the plunger, steadying and guiding the motion of the latter. A packing, L L, prevents the water from passing up around it, into the chamber D, above.

In order to allow the plunger to rise and fall, the discharge-pipe J passes out through the pipe E, by means of an elongated but narrow slot, *e*, which allows a certain degree of vertical motion to the plunger, but will not allow the latter to be turned on its axis without at the same time turning the pipe E, and the walls D D.

The pipe I is provided with a suitable handle at its upper extremity, by which it can be raised and lowered, or turned on its axis.

The pipe E is provided with an outlet-pipe, M, which, when there is any leak from the lower part of the hydrant to the space above the packing L, allows the water to escape, and indicate the existence of the leak.

By means of a screw-bolt, N, the walls D and C can be fastened firmly together, so that one cannot be rotated on its vertical axis without rotating the other in the same manner.

The operation of this hydrant is exceedingly simple and convenient.

Ordinarily the valve F is closed, and no water can escape; but by pressing the plunger down, by means of its handle, the valve is unseated, allowing the water to pass from pipe A to the discharge-pipe J. The cap or cover D protects all the working parts below from dirt, and, at the same time, allows the water that may leak around the plunger or the packing L to rise to the pipe M. The latter not only indicates the leak, but, when there is one, carries off the water, and discharges it at a distance from the hydrant, preventing the accumulation of ice around it in winter.

The whole working-apparatus of the hydrant, consisting of all the parts shown in the drawing, except pipe A and chamber B, can be unscrewed from chamber B, and removed, by simply turning the handle of the plunger to right or left, according as the screw-threads *b b* run in one direction or the other.

Having thus described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination of the parts C D E, the two former capable of being firmly attached together, by the screw N, with the tubular plunger I, having the discharge-pipe J, when so arranged as to enable the operator to detach and remove the hydrant from the pipe, by simply turning the handle of the plunger, substantially as described.

2. The combination of the packing L and cylinder K with the plunger I, walls C C, valve F, spring G, and stem H, substantially as and for the purpose described.

ROBERT REILLY.

Witnesses:

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