

(No Model.)

J. REDICAN.
HYDRANT.

No. 470,842.

Patented Mar. 15, 1892.

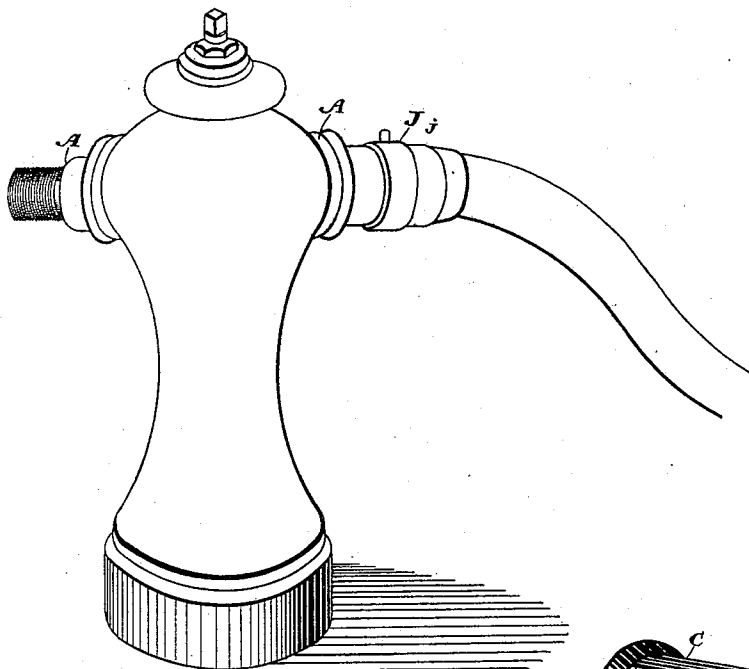


Fig. 1.

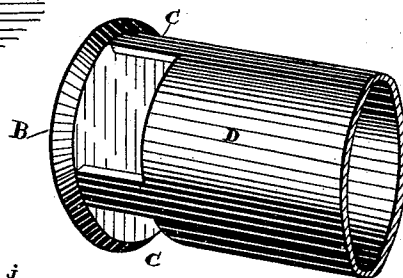


Fig. 3.

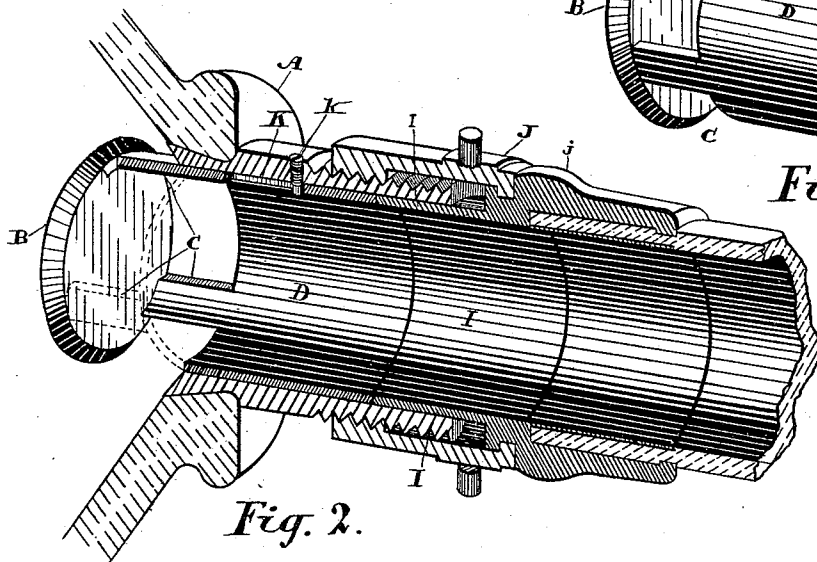


Fig. 2.

Witnesses.

A. B. Monkhouse

L. P. Abell

Inventor:

Joseph Redican
by Fehustonhaugh & Co
Attys

UNITED STATES PATENT OFFICE.

JOSEPH REDICAN, OF TORONTO, CANADA, ASSIGNOR OF ONE-HALF TO JAMES CHAMBERLAIN, OF SAME PLACE.

HYDRANT.

SPECIFICATION forming part of Letters Patent No. 470,842, dated March 15, 1892.

Application filed November 7, 1890. Serial No. 370,682. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH REDICAN, gentleman, of the city of Toronto, in the county of York, in the Province of Ontario, Canada, have invented certain new and useful Improvements in Hydrants, of which the following is a specification.

My invention relates to improvements in hydrants, in which the cut-off valve at the main is connected to and operated by a rod which passes through the center and projects through the top of the hydrant to receive the crank-handle; and the object of the invention is to construct a cut-off valve within the hydrant-plug which will shut off the water automatically without the necessity of turning off the valve at the main; and it consists, essentially, of a valve located at the inner end of the hydrant-plug and connected to the cylindrical sleeve which moves within the plug, the said sleeve, when the coupling of the hose is being screwed on, being forced inwardly against the pressure of the water by the ring corresponding in diameter to the sleeve and extending inwardly to the tail-piece of the coupling; but when the coupling is being unscrewed the pressure of the water causes the valve to resume its initial position and shut off the water, substantially in the manner hereinafter more particularly explained.

Figure 1 is a perspective view of the hydrant. Fig. 2 is a perspective sectional detail exhibiting my invention. Fig. 3 is a detail of the valve.

In the drawings like letters of reference indicate corresponding parts.

A represents the hydrant-plug leaded or otherwise suitably secured to the body of the hydrant.

B is the cut-off valve, which is connected by the bars C to the cylindrical sleeve D.

I is an extension-ring corresponding in diameter to the sleeve D and extending from the tail-piece *j* of the hose-coupling J.

In Fig. 3 it will be noticed that the valve and cylindrical sleeve D are connected together by three bars C, so as to leave large open spaces for the free passage of the water.

Although I show this method of connection, it will be understood, of course, that any other simple mechanical construction might be employed.

Having now briefly described the parts involved in my invention, I shall describe their operation. The hose-couplings are screwed onto the hydrant-plugs in the ordinary way before the water is turned at the main by the central valve-rod. In so screwing them on the extension-ring I in the coupling J presses against the cylindrical sleeve D in the plug A, thus pushing the valve B from its seat sufficiently far to admit of the free escape of water. The water is now turned on at the main and makes its way through the plug into the hose. Should, however, one of the hose burst, as is often the case at a fire, instead of turning off the water at the main, and thus preventing the use of the other length, it is merely necessary to unscrew the one length, when the pressure of the water will immediately close the valve and prevent the escape of water. Another length of hose may now be immediately substituted, and as it is being screwed on will reopen the valve and again permit the free escape of water through the hose. It will be seen that either coupling may be taken off at the will of the firemen or person using the hose and taken to another hydrant without interfering with the flow of the water. It will also be understood that the water may be turned on full, and the valves being self-closing prevent the escape of the water until the coupling or couplings of the hose are attached.

In order to prevent the possibility of the valve and sleeve falling into the hydrant, I make a slot K in the sleeve D, and insert a screw *k* through the plug A, to form a stop, as shown. The slot K is made sufficiently long to allow the free movement of the valve.

In a pending application, filed February 10, 1890, Serial No. 339,852, I have shown a valve for hydrants automatically operated by the pressure of the water, the said valve being connected by a sliding sleeve, the sleeve being provided with a pin which projects through

a slot in the plug in position to be moved by the coupling when the same is secured thereon, and I do not claim this construction.

What I claim as my invention is—

- 5 In a hydrant, a valve, a sliding sleeve fitting the walls of the plug, said valve being connected to said sleeve by extensions in direct line therewith, and a coupling engaging with the plug and having an extension-ring I, said

extension being circular in cross-section and also fitting the walls of the plug and abutting against the end of the sliding sleeve, the interior of the plug being left free for the uninterrupted flow of the water.

JOSEPH REDICAN.

Witnesses:

A. B. MONKHOUSE,
L. P. ABELL.