(No Model.)

W. E MORAN.

Waste Cock.

No. 232,050. Patented Sept. 7, 1880.

Fig. 1.

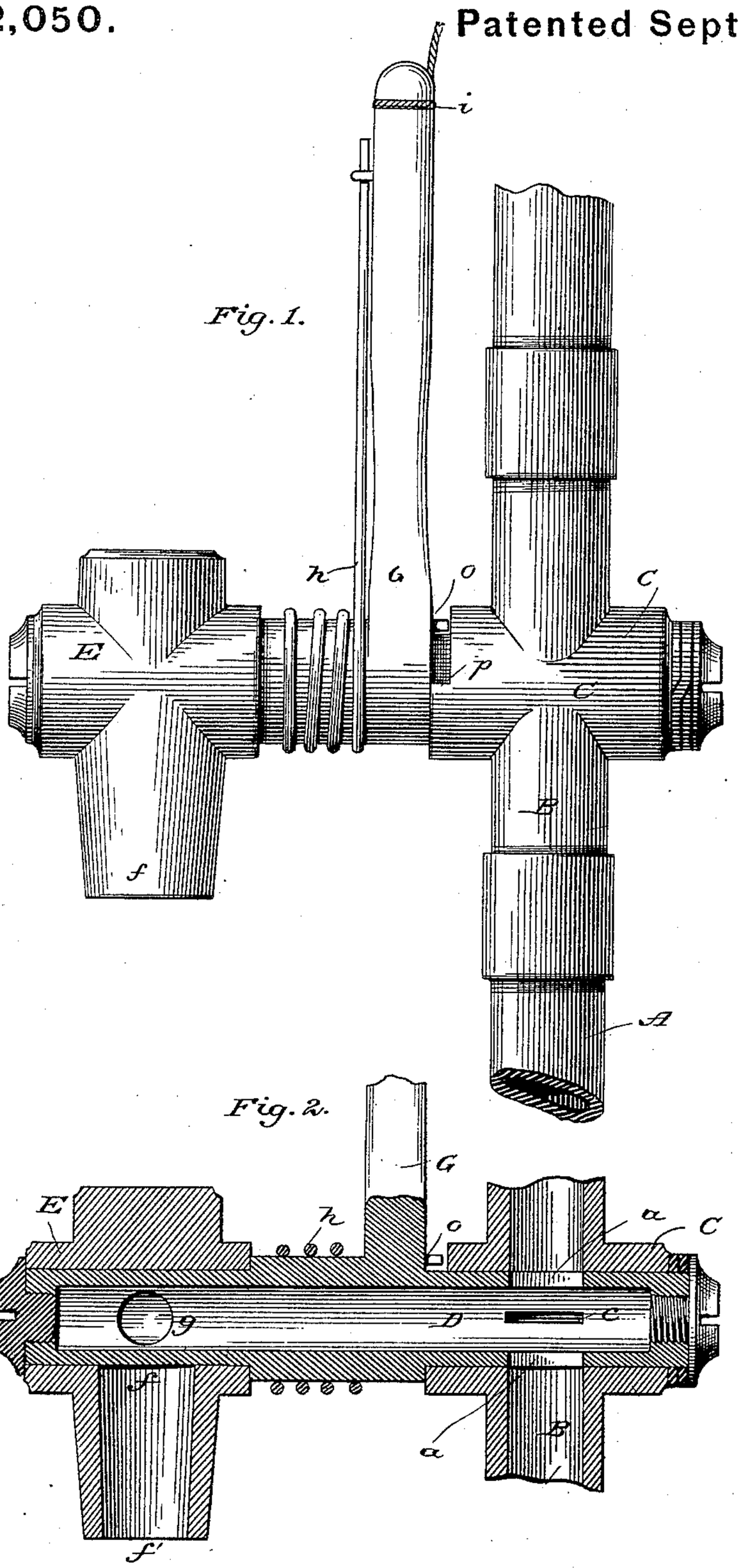

Fig. 2.

Attest:

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Atty

UNITED STATES PATENT OFFICE.

WILLIAM E. MORAN, OF WASHINGTON, DISTRICT OF COLUMBIA.

WASTE-COCK.

SPECIFICATION forming part of Letters Patent No. 232,050, dated September 7, 1880.

Application filed June 29, 1880. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM E. MORAN, of Washington, in the county of Washington and District of Columbia, have invented certain new and useful Improvements in Waste-Cocks; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

The object of my invention is the construction of a waste-cock, operating in connection with the inlet-pipe which supplies water to a building, so arranged that it will be capable of automatic action to discharge the water contained in the pipes running through the upper part of the building without the liability of such water running back into the inlet-pipe, the movement of the valves controlling the entrance and discharge of the water being accomplished by a single lever.

My invention consists in the peculiar construction of the operative parts and their various operative combinations, all as fully hereinafter described.

In the drawings, Figure 1 represents an elevation, and Fig. 2 a central section.

A represents the inlet-pipe which supplies water to the building. B is a short section of pipe to which the inlet-pipe A is coupled, as shown.

The section C, formed integral with the part B, receives one end of the cylindrical hollow plug D, and forms a bearing therefor.

The end of the plug D, which is supported in the bearings, as just described, is provided with three ports, *a a* and *c*, the ports *a a* being placed opposite one another, so as to be in line with the openings into the inlet-pipe above and below. The port *c* is situated midway between the openings *a a*, and extends through one side only of the hollow plug. It is evident, therefore, that when the port *c* is brought into line with the upper section of the inlet-pipe the water contained in such pipe will enter the hollow plug, but cannot descend into the inlet-pipe, since the ports *a a* are both closed. The other end of the hollow plug D has a bearing in a pipe, E, provided with a discharge-opening, *f*, communicating with a waste-pipe, *f'*. This end of the hollow plug has a discharge-port, *g*, placed on the side of the plug opposite the opening *c*. By reason of this position of the ports, when the inlet-pipe is closed the water can enter the plug through the port *c* and be discharged through the port *f*.

A lever, G, is secured to the hollow plug at a point between its bearings, and such lever is held in the position shown in the drawings by a stiff coiled spring, *h*, and is provided with a stud, *o*, which, by bearing against a projection, *p*, limits its motion in one direction. When in this position the inlet-pipe is closed and no water can enter the building.

At *i* is a cord or wire secured to the end of the lever, and passing up through the building by any suitable arrangement. Under any ordinary circumstances the pressure of the spring will hold the lever down; but when it is desired to admit water to the upper part of the building the lever is drawn up by means of the cord against the pressure of the spring, thereby opening the inlet-ports and allowing the water to pass freely through the inlet-pipe into the upper stories of the building. Sufficient water having been used, pressure on the wire is released, and the spring will automatically retract the lever, closing the inlet-port and opening the two discharge-ports *c* and *f*, thus allowing all the water contained in the pipe to pass off through the waste-pipe and into the sewer or other receptacle.

Heretofore great annoyance and expense have been caused to users of water on account of the pipes being filled with water, which is liable to freeze in winter and crack or burst the pipes. It is evident by my construction that no water can stand in the pipes, since the waste-pipe is kept open automatically at all times, and no water permitted to enter the pipe except when required for actual use.

My device is intended to be attached to the wall in the cellar or lower part of the house, as shown in the drawings. Its advantages will be appreciated at once by those skilled in the art, and need no detailed description here. It is simple in its construction, cheap to manufacture, and not liable to get out of order and need frequent repairs.

Having thus described my invention, what I claim is—

1. The combination of the inlet-pipe and waste-pipe, the hollow plug having the ports *a a*, *c*, and *f*, and means whereby they are opened and closed, substantially as described.

2. The combination of the inlet-pipe and waste-pipe, the hollow plug, and a single lever provided with a spring, whereby the waste-ports are opened and the inlet-ports closed, as described.

3. The combination of the inlet and waste pipes, the hollow plug and its operating-lever, the spring, and the wire or cord, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

WILLIAM E. MORAN.

Witnesses:

W. A. MOORE,

WILSON N. FULLER.