H. L. Frailey,

Hydrant Stop-Cock,

No. 53,736, Patented Apr. 3, 1866.

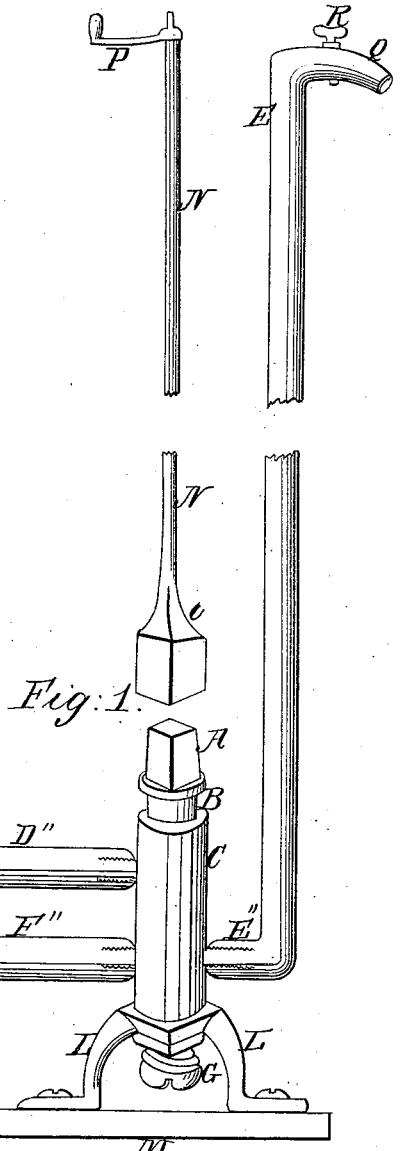

Fig: 1.

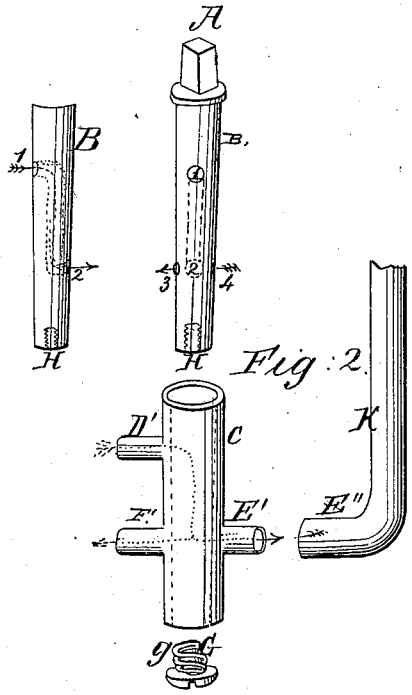

Fig: 2.

Witnesses;

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Inventor;

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UNITED STATES PATENT OFFICE.

HENRY L. FRAILEY, OF LANCASTER, PENNSYLVANIA, ASSIGNOR TO HIMSELF AND CHRISTIAN G. HERR, OF SAME PLACE.

IMPROVEMENT IN HYDRANT STOP-COCKS.

Specification forming part of Letters Patent No. **53,736,** dated April 3, 1866.

To all whom it may concern:

Be it known that I, HENRY L. FRAILEY, of the city of Lancaster and county of Lancaster, in the State of Pennsylvania, have invented a new and useful Improvement on Stop-Cocks for Hydrants; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 shows the several parts in place. Fig. 2 shows the stop-cock in detail.

The nature of my invention consists in constructing the stop-cock so as to carry off the waste water from the hydrant also, often injurious to the foundations of adjoining buildings, as well as to prevent the freezing of the water remaining in the discharge-pipe, if no waste-pipe is provided, being so constructed that when the discharge-pipe is opened the waste-pipe is closed, all operated simultaneously by the key, operated by a rod in the ordinary manner.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

I construct my vertical cylindrical barrel C, Fig. 2, of such size required, and provide it with three pipes, D′ E′ F′, which open into the slightly-conical bore of the barrel. This bore or chamber is provided with a key, B, adapted to the bore of the chamber, so as to fit neatly at all points. The key B is provided with a square head, A, to which the socket *o* of the turning-rod N is applied to turn the same. The key B has an aperture, 1, which is in a line opposite the opening of the upper pipe, D′, with a continuation down the center of the key to another aperture, 2, opening directly opposite on the key from the one above and in a line with the lower pipe, E′. There is also another aperture directly through the key, 3 and 4, and centrally communicating with the central vertical bore in the key—*i. e.*, from 1 to 2—opening from pipe F′ also to pipe E′.

The key has a female screw, H, at its base, for the reception of a screw, G, and spring *g*, for retaining it in the barrel on the ordinary plan, as shown. There is also a square base, provided with brackets L, in order to fasten the whole to the bed-block M at the bottom of the hydrant.

To these pipes D′ E′ F′, forming a part of the barrel C, Fig. 2, the other pipes, D″ E″ F″, are connected, by screw-socket or otherwise, F″ being the drain or pipe to carry off the waste water left in the discharge-pipe E″ K when shut off at the top, by turning the handle P and rod N, with its socket *o*, over the head A of the key B, by closing the pipe D′, performing this office as ordinary stop-cocks do, and thus shutting off the water from the supply-pipe D″. At the same time the aperture or opening through the key 3 4 comes in a line with the two pipes F′ E′ on the barrel of the stop-cock, and their connection with the discharge-pipe E″ K and waste-pipe F″ opens a direct communication through the key, and consequently carries off all the water otherwise remaining in the pipe E′ K and key B through the waste-pipe F″ to any desired point distant from the foundation of the dwelling, and prevents damp cellars and otherwise injury arising from a constant waste around the base of the hydrant, as well as to prevent freezing during winter.

In summer-time, when no waste is desired, by arresting the lever-handle P at the half of the full sweep or half-turn, by inserting a plug so as to give but a quarter-turn, the supply-pipe will be opened fully; but the quarter-turn back will not open the key to the drain-pipe F′ F″, so that no waste will take place, as water is often scarce and there is no danger of freezing. Besides, a stop-cock, R, could also be applied to the discharging-nozzle Q and the water left on all the time during summer, and no waste would take place.

I am aware that stop-cocks provided with an aperture or small pipe for waste are in use, as well as various devices for constructing and operating stop-cocks on hydrants; but I am not aware that the barrel of a stop-cock provided with pipes D′ E′ F′ and a key, with apertures 1 2 3 4, so constructed as to open the supply-pipe in connection with the discharge-pipe at the same time that it closes the opening into the waste-pipe, and that when the supply-pipe is closed a half-circle will open the outlet to the waste pipe to carry off the water, or, if desirable, by a quarter-turn only, arrested by a check-block on the hydrant, no waste will take place. To accomplish this I deem the construction and arrangement of my stop-

cock to possess novel and useful features, which is the substance of my invention; therefore

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

A stop-cock the barrel C of which is provided with three pipes, D′ E′ F′, opening into the chamber, and the key B, with a hollow central portion, communicating by apertures 1 2 with the pipes D′ E′, and by its perforation 3 4 with pipes F′ E′, arranged and operating in the manner and for the purpose specified.

HENRY L. FRAILEY.

Witnesses:

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