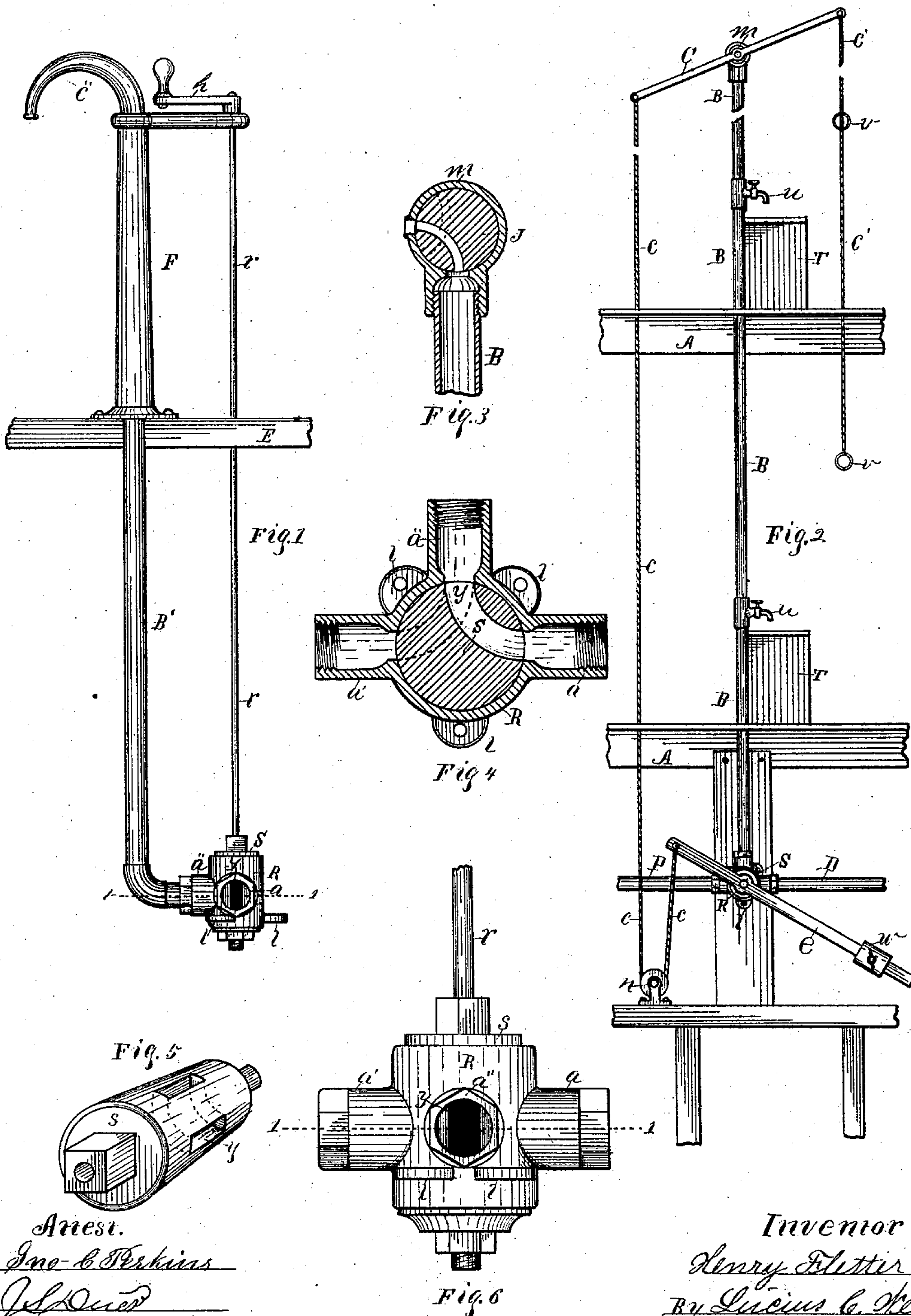


(No Model.)

H. FLETTER.
NON FREEZING HYDRANT.

No. 287,815.

Patented Nov. 6, 1883.



Attest.
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Att'y-

UNITED STATES PATENT OFFICE.

HENRY FLETTER, OF KALAMAZOO, MICHIGAN, ASSIGNOR OF ONE-HALF TO
GEORGE DE LA BAR, OF SAME PLACE.

NON-FREEZING HYDRANT.

SPECIFICATION forming part of Letters Patent No. 287,815, dated November 6, 1883.

Application filed January 5, 1883. (No model.)

To all whom it may concern:

Be it known that I, HENRY FLETTER, a citizen of the United States, residing at Kalamazoo, county of Kalamazoo, State of Michigan, have invented a new and useful Non-Freezing Hydrant, of which the following is a specification.

The object of my invention is to effect certain improvements in hydrants and hydrant-valves, to facilitate the operation and prevent freezing.

A construction embodying my improvements consists in a cylindrical valve chamber or shell having three ports or ways leading therefrom, provided with a cylindrical valve or stop-cock having a circular passage or way through it at such a location that by turning the valve a continuous way or passage may be temporarily established between the supply and hydrant ports, while the waste-port is closed, or between the hydrant and waste ports, while the supply-port is closed. This construction is designated as a "two-way valve" in a three-way chamber. A further construction consists in a device for operating the valve in a hydrant used in a building.

In the drawings forming a part of this specification, Figure 1 shows a side elevation of an out-door hydrant with the valve in use; Fig. 2, a side elevation of an in-door hydrant, showing my new device for operating; Fig. 3, a vertical section of the upper end of the hydrant in Fig. 2; Fig. 4, a horizontal section on line 1 1 in Figs. 1 and 6, showing a top view of the portion below said line; Fig. 5, a perspective of the valve or stop-cock in Figs. 1, 4, and 6; and Fig. 6 is a side elevation of the valve-chamber enlarged from that in Fig. 1.

R is the valve chamber or shell, having a supply-port, *a*, a hydrant-port, *a''*, and a waste-port, *a'*.

S is the valve, having the circular passage or way *y*, Fig. 5. In Fig. 4 the valve is in a position that a continuous passage is established between the supply and hydrant ports, while the waste-port is closed. When the valve is in this position, the water passes up the hydrant-pipe. By turning the valve S until a passage is established between the hydrant-port and the waste-port, and the supply-port is closed, as indicated by dotted lines

in Fig. 4, the supply of water will cease, and the water in the hydrant will run down out of the waste-port *a'* by gravity.

In Fig. 1, F B' illustrate a common style of out-door hydrant with which my device may be used, and *h r* the usual means of operating the valve.

In Fig. 2, B B illustrate a hydrant located indoors, having faucets *u u* in different stories of the building. In this figure the valve-chamber R, with its valve S, are located in a horizontal position.

e is a weighted valve-lever, secured to the end of the valve S.

c c is a rope secured to the end of the weighted lever *e*, thence passing around pulley *n*, extending up through the floors A A of the different stories, and is secured to the air-valve lever C. This lever is secured to an air-valve, J, made like the water-valve S, and located in shell or chamber *m* at the top of the hydrant B. The chamber *m* has two air-ports, one leading into it and another leading from it into the hydrant. When air-valve J is located as in Fig. 3, a continuous passage is established between the two air-ports. Rope *c'* is secured to one end of lever C and passes down into the different stories.

v v are rings to take hold of. By this arrangement the air-ports are opened when the water-supply port is closed and the waste-port is opened, and vice versa. The object of admitting air into the hydrant above the water is of course to facilitate the downward flow of the water out of the waste-port before it can congeal by the cold.

By this device water may be admitted and shut off in the chamber R in the basement of the building by any one in the different stories at will. Pulling down on rope *c'* admits the water, the valve S being then as in Fig. 4, and when rope *c'* is released the weight *w* turns the valve back and opens the waste-port.

P D in Fig. 2 are the supply and waste pipes, connecting with ports *a a'*. Weight *w* is adjustable on lever *e* by means of a set-screw.

Having thus described my invention, what I claim as new is—

1. In a hydrant, the combination of a three-way valve-chamber, a two-way valve, an air-valve, a weighted lever, and an air-valve le-

ver, with operating means, substantially as described.

2. In a hydrant, the air-valve and its lever, the water-valve and weighted lever, the rope
5 connecting said levers and passing around the pulley, and a rope for operating the device, all combined substantially as set forth.

In testimony of the foregoing I have hereunto subscribed my name in the presence of two witnesses.

HENRY FLETTER.

Witnesses:

GEORGE DE LA BAR,
J. S. DUER.