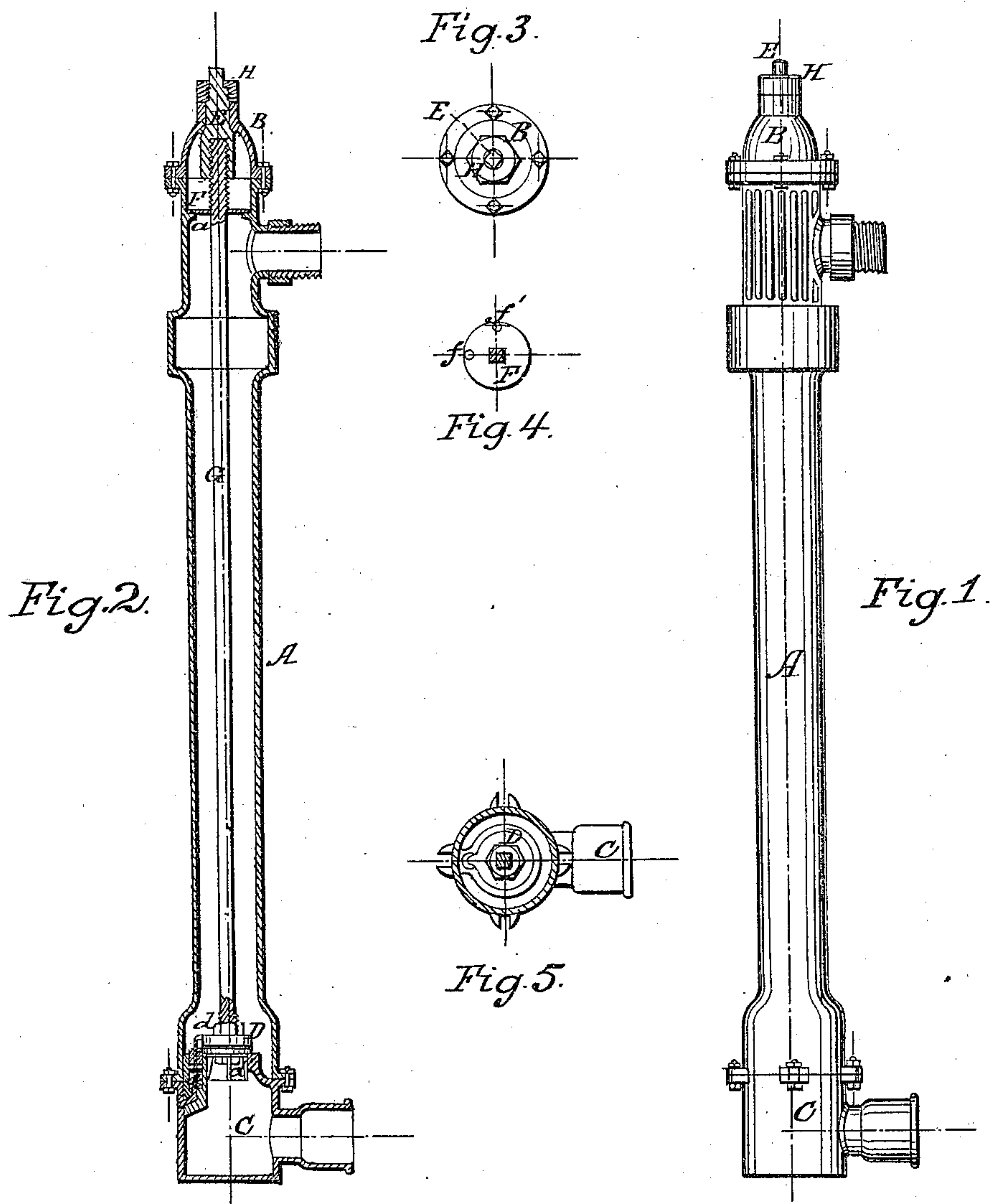


Fricker & Warden,

Hydrant.

No. 104,012.

Patented June 7, 1870.



Witnesses

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JACOB FRICKER AND AMERICUS WARDEN, OF CINCINNATI, OHIO.

Letters Patent No. 104,012, dated June 7, 1870.

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 we, JACOB FRICKER and AMERICUS WARDEN, both of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Fire-Hydrants; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings making part of this specification.

Our invention relates to that class of hydrants that are so constructed that, after simply removing the cap, the valve and valve-stem may be withdrawn from the body or stock of the hydrant for repairs, without removing the body from the ground; and

Our invention consists—

First, in connection with a square form of valve-stem, of a disk of metal, perforated with a square aperture to fit the valve-rod, and secured to the stock of the hydrant in such a manner that, while it permits the valve to rise and fall in opening and closing, will, at the same time, prevent the rod from revolving. It can also be twisted in place to permanently close the waste-vent of the plug at the bottom.

Secondly, in a peculiar construction and arrangement of main valve and waste-valve.

In the accompanying drawings—

Figure 1 represents an external view of the fire-hydrant.

Figure 2 is an axial section of the same.

Figure 3 is a plan of cap.

Figure 4 is a plan of the disk-guide for the valve-stem.

Figure 5 represents a plan of the shoe which connects with the water-supply.

A represents the iron body, in form as shown, with flange on top to attach the cap B, and a series of lugs at the bottom to attach the shoe C; also a projecting ring, *a*, on inside, to receive the disk F.

B represents the iron cap, with flange to attach to body, and is provided on the inside, near the top, with an inverted-angle seat and sleeve, in which revolves the composition-metal nut E.

C represents the shoe, provided with lugs for attachment to body, and socket to attach the connection-pipe from the street; also, a raised seat for valve D, upon one side of which is arranged a small valve, operated by the main valve, when in the act of seat-

ing, to empty the body, to prevent freezing in cold weather.

D represents the valve in three parts, the upper portion being a plain disk, the middle being also a disk of India rubber, forming the valve, the lower portion being a disk, with a series of projections downward for guides, all being held together by the valve-rod passing through them, with nut upon upper and under the lower disk, both of metal, the top disk having a lip projecting from one side to operate the waste-valve.

E represents a brass metal nut, which, when rotated or revolved, raises and seats the valve, by an internal thread being provided to receive the valve-stem near the top.

The upper end of the nut has a square formed on it, to receive a wrench, by which it is operated, and below it is a thread to receive the nut H, and still below it is an angle, formed to fit the inverted angle in cap B, thereby forming a ground bearing for nut E and inverted seat of cap B.

F represents an iron disk, with a square hole through its center, by which the valve-rod is guided in its vertical motion, the valve being simply raised from or lowered to its seat, but not rotated or revolved.

By revolving the disk one-quarter turn, it will relieve the waste-valve from operation during the warm seasons.

G represents the valve-stem of square wrought iron, with thread cut near top to receive nut E, and on bottom end the nuts to secure valve D.

What we claim as new and of our invention, is—

1. In the described connection with the valve D, revolving nut E, and square valve-stem G, threaded at the end to fit the nut E, the plate F, having a square aperture to fit the rod G, operating as and for the purpose described.

2. In combination with the stock A, having a main valve-seat at its lower end, of the construction described, and valve-stem G, the triple-disk valve D, the upper disk formed with a projecting lip, to operate the waste-valve by direct contact, in the manner described and for the purpose specified.

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Witnesses:

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