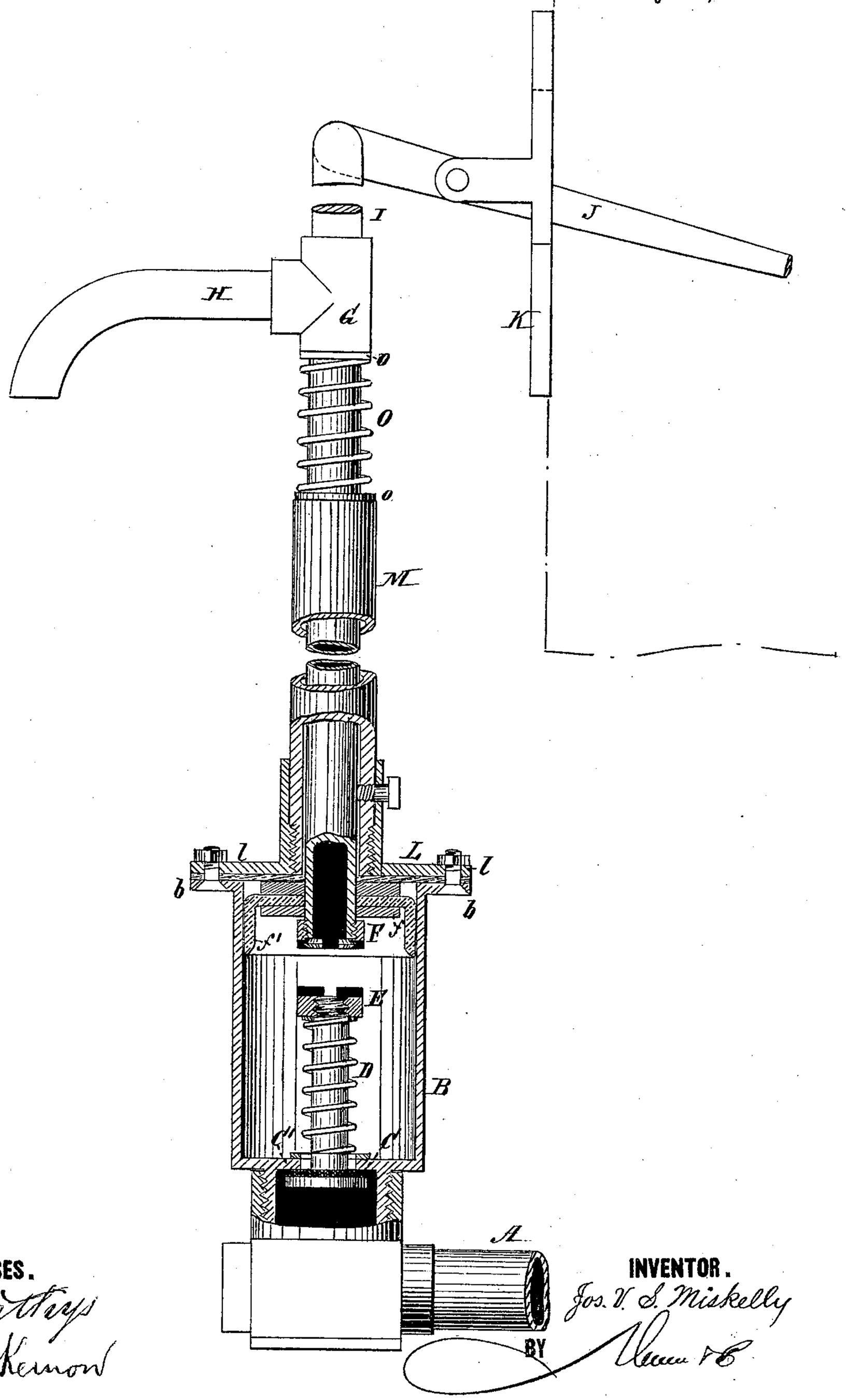
J. V. S. MISKELLY.

Hydrants.

No. 151,417. Patented May 26, 1874.



WITNESSES.

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JOSEPH V. S. MISKELLY, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN HYDRANTS.

Specification forming part of Letters Patent No. **151,417**, dated May 26, 1874; application filed April 20, 1874.

To all whom it may concern:

Be it known that I, JOSEPH V. S. MISKELLY, of Baltimore city, State of Maryland, have invented a new and Improved Hydrant; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming a part of this specification, in which the figure is an elevation, partly in section.

This invention contemplates an improvement in the construction of hydrants used in connection with the water-mains of cities, or wherever a current of water has sufficient fall from its source to carry it up to the desired point of discharge.

These are usually open to two objections, one being that they receive drainage-water, and the other that the water remaining in the tube after use is liable to freeze. The novel means which I employ to overcome both these difficulties will first be fully described, and then pointed out in the claim.

A represents the pipe leading from main, and B the chamber into which the water is received therefrom. C is a valve that moves up to its seat C′, and is held closely thereto by a spring, D, placed on the inside of chamber or cylinder B, and pressed against the bottom of cylinder by a nut, E, with one or more intermediate washers. F is the hydrant-plunger, having an end disk, *f*, and proper flexible packing *f′*. This plunger is a tube, and extends up, forming under the ground no joint into which surface drainage can enter, but jointed to the T-tube G, which receives the discharge-spout H and post I. On top of the latter is pivoted the end of hand-lever J, that is fulcrumed in the slotted rigidly-fastened bracket K. L is a cap, whose flange, *l*, fits upon a corresponding flange, *b*, of chamber B, while between the two is made a water-tight joint with suitable packing. M is a guide-tube, which may be screwed into the cap L, or cast therewith. Between the upper end of this tube M and the T-tube G is located a strong spring, O, resting preferably at each end against a washer, *o*.

The operation is as follows: When pressure is brought to bear upon the post I, the latter, together with the spout H and plunger F, is carried downward, overcoming the upward tension of spring O, and causing the plunger-disk *f* to strike the nut E. This overcomes the upward tension of the spring D, forces downwardly the valve C, and admits water into chamber B, the water then coursing, by the impulsion of its back pressure, up through the plunger and out of the discharge-spout. As soon as the power exerted on the post I by the lever or other means ceases, the spring O lifts the post, spout, and plunger, while the spring D elevates the valve C to its seat.

The tube M serving as a guide-tube, and having no joint near the surface of the ground, all drainage is effectually excluded therefrom. On the other hand, after the disk *f* has moved up, a vacant space is always left in the chamber B, amply sufficient to receive all the water which is arrested in the plunger by the closing of valve C.

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

The combination of the chamber B, having downwardly-opening spring-valve C D, pistoned tube F *f*, serving both as plunger and water-conduit, guard-tube M, spring O, T-tube G, and post I, in the manner and for the purpose specified.

JOSEPH V. S. MISKELLY.

Witnesses:
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