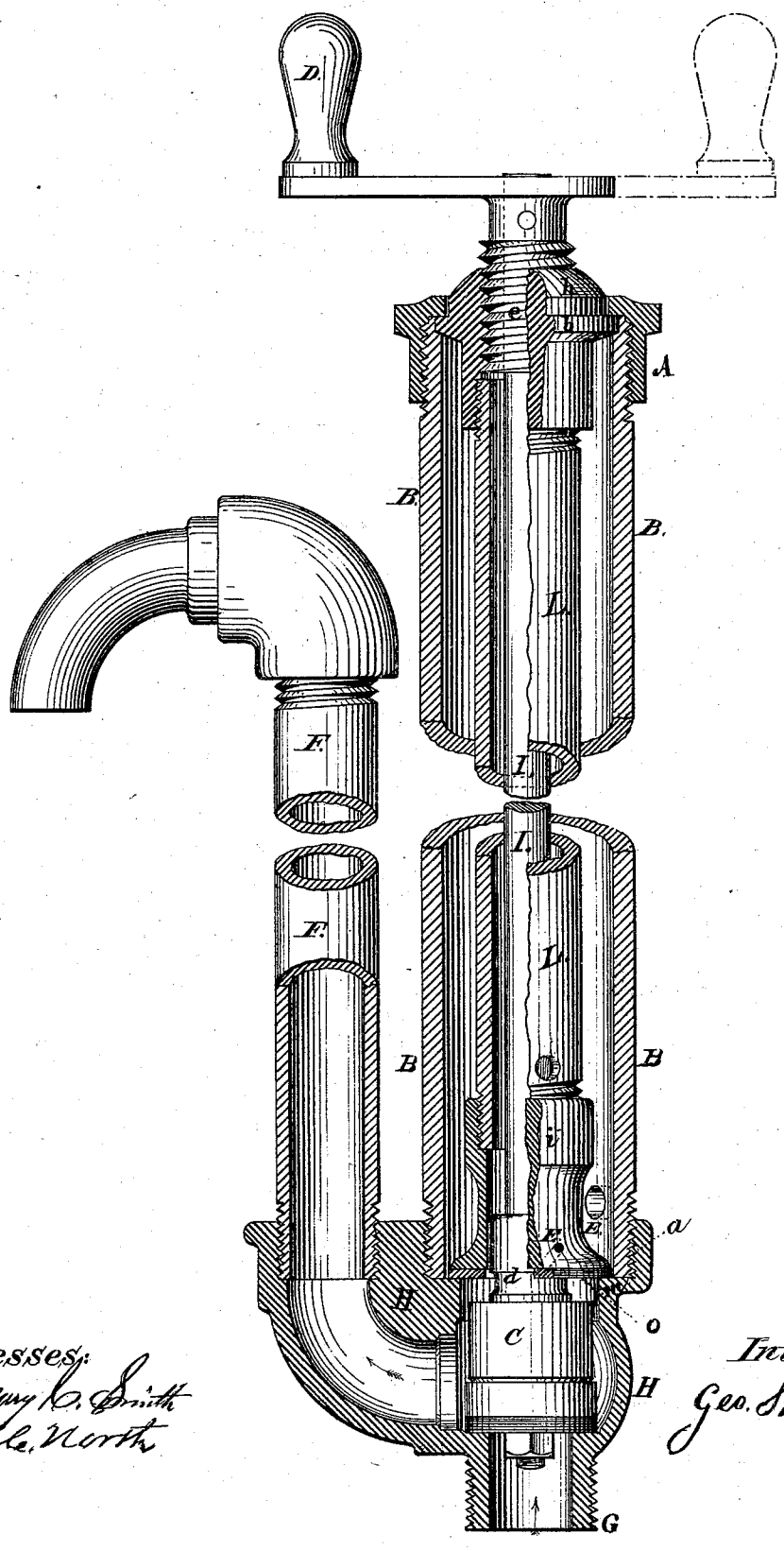
G. SHELLEY.

HYDRANT.

No. 172,184. Patented Jan. 11, 1876.



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UNITED STATES PATENT OFFICE.

GEORGE SHELLEY, OF WILKESBARRE, PENNSYLVANIA.

IMPROVEMENT IN HYDRANTS.

Specification forming part of Letters Patent No. **172,184**, dated January 11, 1876; application filed December 6, 1875.

To all whom it may concern:

Be it known that I, GEORGE SHELLEY, of Wilkesbarre, Luzerne county, State of Pennsylvania, have invented certain new and useful Improvements in Hydrants, of which the following specification is a full, clear, and exact description, reference being had to the accompanying drawing, forming a part of this specification.

The drawing illustrates an elevation of my improved hydrant, partly in section.

The object of the invention is to furnish a hydrant for domestic and other purposes having the operative parts so constructed and adjusted that they may be readily removed for repairs and again placed in position without the necessity of taking up the entire apparatus to accomplish this end.

The invention consists in providing the top of the pipe inclosing the operating mechanism with a removable screw-threaded cap, the threads thereof corresponding with exterior threads on the extension of said pipe, and so securing the valve-rod and its accessories therein as to enable the latter to be easily removed at pleasure, all as more fully hereinafter described.

The hydrant is, preferably, constructed principally of wrought-iron (galvanized or plain) pipe, since this material is not so easily affected by frost, and is not as liable to be injured from accident as cast-iron pipe.

In the drawing, H represents the foot-piece of the hydrant, in which is located the valve-seat. The screw-threaded extension thereof, G is designed to be secured to the water-main, and at the upper left-hand side of this box is seen the discharge-pipe F, which is also secured thereto by screw-threads or otherwise. This foot-piece has internal screw-threads at the point *a* for the reception of the gas-pipe B. The upper end of pipe B is screw-threaded to receive the internally screw-threaded cap A, which is, preferably, made of brass. The valve-rod I has secured to its lower end the valve C, which may be of any well-known construction; and immediately above the valve, rigidly attached to rod I, is the grooved brass piece *d*. The upper half of this piece *d* is of such diameter as to correspond nicely with the internal diameter of the brass piece *i*, and when the valve C is opened the upper edge of *d* bears up against the lower edge of the valve-casing L, while a rubber washer, *o*, fills in the groove in *d*, and is held securely between the valve C and brass piece *i*, thus forming an effectual joint against the escape of water into the valve-casing L. The upper end of rod I is provided with a brass extension-piece, *e*, of greater diameter than said rod, which is screw-threaded to coincide with the threads on the inner surface of the brass dome-shaped casting *h*, which latter has a shoulder, formed by the ring *b*, against which the cap A snugly rests when screwed down in position.

The operating-handle D is attached to the screw *e*, as shown. The inner pipe or valve-rod casing L is screwed into the dome-shaped piece *h* at the top, and into a corresponding brass piece, *i*, at the bottom. When the valve is closed the piece *i* rests against a shoulder formed upon the foot-piece H, as seen at *m*.

From the above it will be seen that the valve-casing L, with the valve C, its rod I, and cap A, and other accessories, may be removed for repairs, &c., by unscrewing the cap A, so as to entirely release it from the pipe B.

The operation of the hydrant is obvious. To admit water from the main into the discharge-pipe F the valve is raised from its seat by turning the handle D, which operates the screw *e* to the right, while, to shut off the supply of water, the handle is turned in the opposite direction. To prevent water from freezing in the stand-pipe the openings E E are provided, and these are brought into coincidence with a wasteway, thus emptying the stand-pipe when the valve is closed.

By my invention it is unnecessary to excavate to the depth of five or six feet to replace the washer, which constantly needs to be done, or to get at the operating mechanism whenever it becomes necessary to repair it, since the arrangement herein described enables the accomplishing of all this in a short space of time, and with little labor and expense.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a hydrant, the combination of the

valve-rod I, having a screw threaded extension, *e*, as set forth, with the internally screw-threaded casting *h* and the cap A, substantially as described, for the purpose specified.

2. In combination with the valve C, valve-rod I, castings *h* and *i*, and valve-casting L, the cap A and outer casting B, substantially as explained, for the purpose specified.

3. The combination, in a hydrant, of the valve C, valve-rod I, having a screw-threaded extension, *e*, castings *h i d*, washer *o*, and valve-casting L, with the cap A, outer casting B, and shoulder *m*, all substantially as described, for the purpose specified.

4. In combination with the valve C and valve-rod L, the castings *d* and *i* and washer *o*, substantially as and for the purpose specified.

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