(No Model.)

J. FLANAGAN.

Hydrant.

No. 230,765. **Patented Aug. 3, 1880.**

Fig. 1

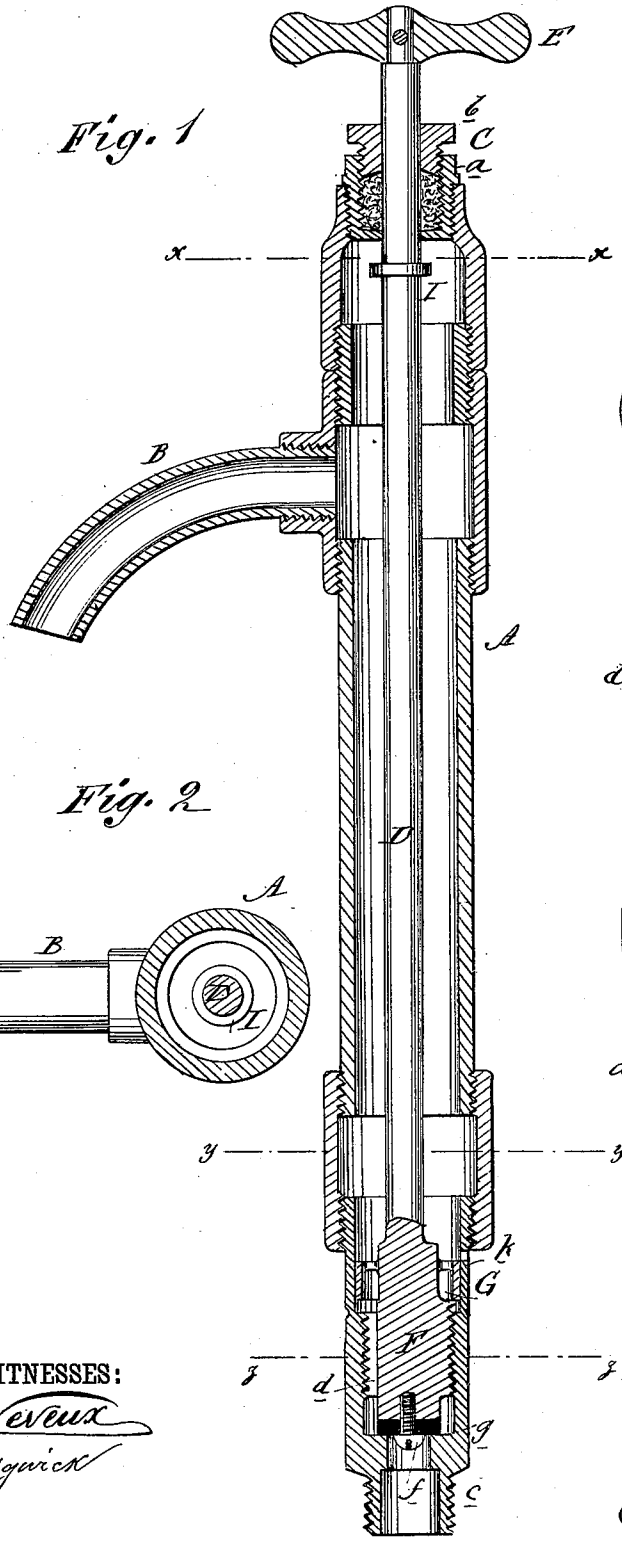


Fig. 3

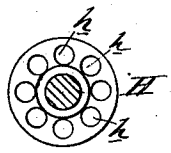


Fig. 4

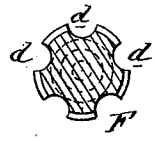
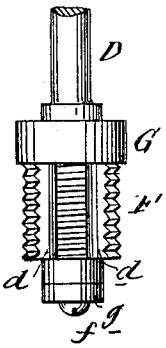


Fig. 2

Fig. 5



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UNITED STATES PATENT OFFICE.

JOHN FLANAGAN, OF NEWBURG, NEW YORK.

HYDRANT.

SPECIFICATION forming part of Letters Patent No. 230,765, dated August 3, 1880.

Application filed April 27, 1880. (No model.)

To all whom it may concern:

Be it known that I, JOHN FLANAGAN, of Newburg, in the county of Orange and State of New York, have invented a new and Improved Hydrant, of which the following is a specification.

The invention consists in a hydrant formed of a case with waste-opening, shouldered valve-rod, fluted screw-plug valve, and a ring, as hereinafter described.

Figure 1 is a vertical sectional elevation of the hydrant. Fig. 2 is a cross-section on line *x x*, Fig. 1. Fig. 3 is a cross-section on line *y y*, Fig. 1. Fig. 4 is a cross-section on line *z z*, Fig. 1. Fig. 5 is a vertical elevation of the screw-plug valve and attached ring.

Similar letters of reference indicate corresponding parts.

In the drawings, A represents a hydrant provided with one or more nozzles, B, said hydrant being composed, preferably, of several tubular sections screwed together, provided at the top with a cap, C, composed of a stuffing-box, *a*, and gland *b*, while the lower section of the hydrant is interiorly and exteriorly screw-threaded, as shown at *c*, to connect with the water-main.

D is the valve-rod, provided at its upper end with a handle, E, said valve-rod passing up through the cap C. On the lower end of this valve-rod D is fixed the screw-plug valve F, which is provided with vertical grooves or flutings *d*, and having secured to its bottom, by a screw, *f*, the disk *g*, of rubber or other suitable packing. Encircling the upper part of this screw-plug F is a broad ring, G, within the upper edge of which ring G is fixed, around the valve-rod D, a perforated disk, H.

In the lower section of the hydrant is a waste-hole, *k*, for the escape of the water remaining in the hydrant when the valve F has been closed down into its seat, as shown at Fig. 1. On the said valve-rod D, and a little below the cap C, is fixed an annular shoulder, I, so that when the said valve F is sufficiently opened by the turning of the valve-rod D the said shoulder I will engage against the under side of the cap C, and thereby prevent the complete unscrewing and disengagement of the valve F from the lower section of the hydrant.

As the valve F is opened or unscrewed for the admission of water through the hydrant the ring G, moving up with the said valve F, closes the waste-opening *k*, so as to prevent further escape of water therefrom, the said ring G being of sufficient depth to cover the said waste-opening *k*, even when the said valve F is open to its fullest extent. As soon as the said valve F is moved from its seat the water flows into the hydrant from the water-main through the flutings or grooves *d* of the said valve F, and through the perforations *h h* in the disk H.

The said valve F may be removed for repairs by unscrewing the cap C and then unscrewing the said valve F by means of the rod D and withdrawing them from the hydrant. So it will be seen that all the working parts of the hydrant can be removed for repairs without at all disturbing the hydrant or hydrant-case itself.

In restoring the valve F in its position within the hydrant, the ring G serves as a guide to direct the said valve F truly into the lower section of the hydrant, so that there shall be no stripping of the screw-thread, or any other interference to the proper motion of said valve.

This device differs from many others, inasmuch as it closes downward by screwing against the pressure of the water, and thereby avoids the sudden stop which creates a water-hammer, as is the case with valves that are closed by a direct sliding motion.

The waste-opening *k*, as will be seen, permits the escape of the water from the hydrant, thereby insuring the hydrant against freezing.

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

A hydrant constructed substantially as herein shown and described, consisting of the case A, provided with waste-opening *k*, valve-rod D, provided with shoulder I, fluted screw-plug valve F, and ring G, as set forth.

JOHN FLANAGAN.

Witnesses:
ALBERT C. SMITH,
HOWARD THORNTON.