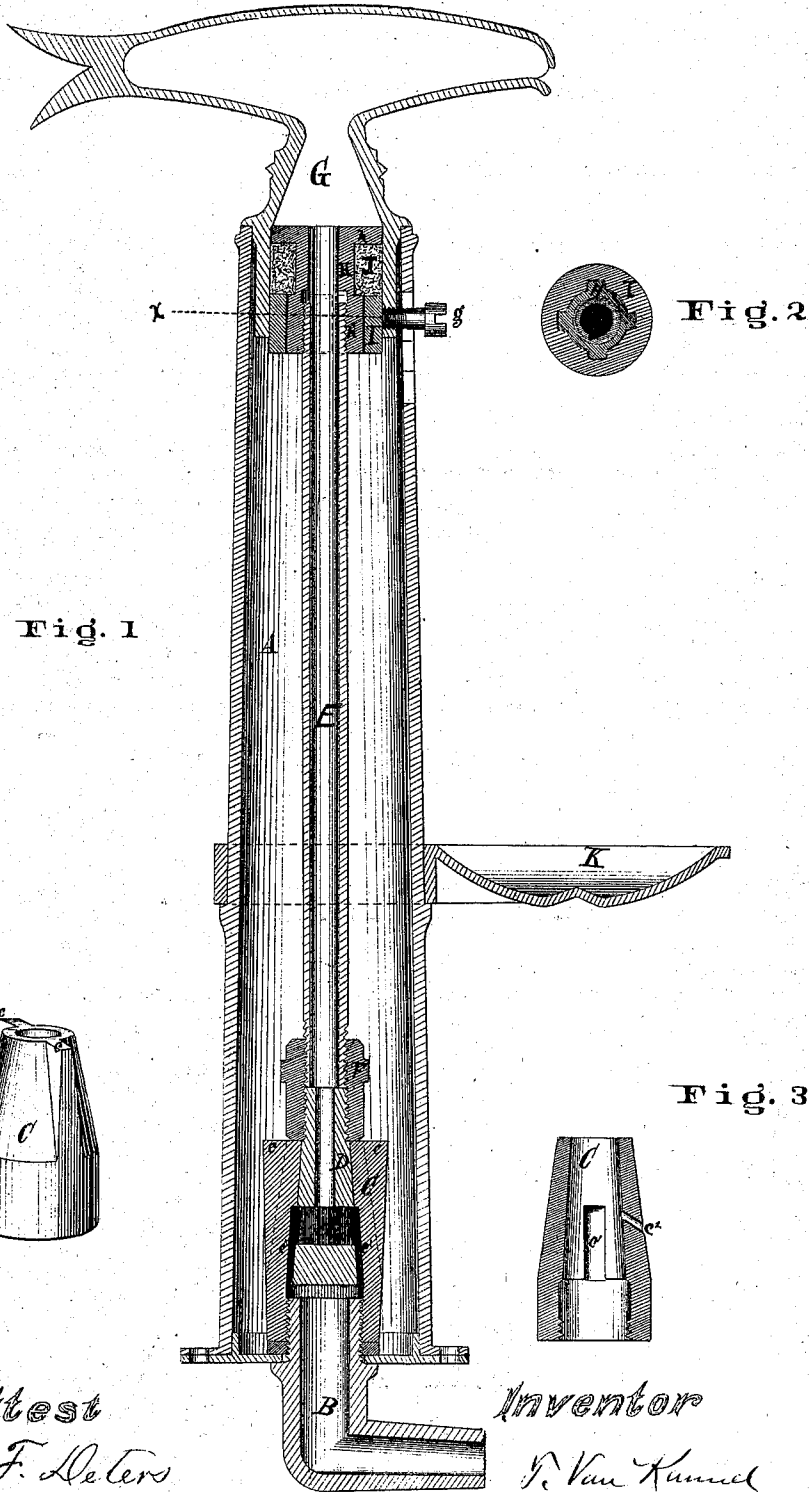


T. Van Kannel,

Hydrant.

No. 97,835.

Patented Dec. 14, 1869.



Attest
John F. Heters
Att. Van Kannel

Inventor
T. Van Kannel

UNITED STATES PATENT OFFICE.

T. VAN KANNEL, OF CINCINNATI, OHIO.

IMPROVEMENT IN HYDRANTS.

Specification forming part of Letters Patent No. 97,835, dated December 14, 1869.

To all whom it may concern:

Be it known that I, T. VAN KANNEL, of Cincinnati, in the county of Hamilton and State of Ohio, have invented a new and useful Improvement in Hydrants; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a vertical cross-section. Fig. 2 is a sectional view taken in the line *x*, Fig. 1. Fig. 3 is a sectional view of the cock, and Fig. 4 is a perspective of the same.

Similar letters of reference indicate like parts.

The nature of my invention relates to a hydrant in which the cock, including all the working parts, can be removed or replaced without the necessity of unearthing the stock; and, further, in which the pressure of the water, acting on the key of the cock, holds the two in close proximity with each other. It is further provided with a drip-pan, which prevents the stream of water from splashing as it falls within the pan.

In construction my invention is as follows:

A is the stock, which is most conveniently and durably made of cast-iron.

B is the brass elbow to which the leaden supply-pipe is attached, and terminates within the stock over which the cock C is screwed.

D is the key ground into the cock C. The projections *c c* on the same engage with two corresponding notches cut into a tube, which is let into the stock to unscrew the cock when it is to be removed for repairs.

e e are ports cut into the cock C to admit the water, and *d* in the key D is the water-way to lead the water up through pipe E. The hole *e'* is drilled into the cock just opposite the water-way in the key D for the escape of the water remaining in the pipe E to prevent freezing. F is the coupling connecting the key D with the pipe E.

It will be observed that as the key D wears it rises upward, carrying with it the pipe E.

To allow the pipe to rise in the head G a device of the following construction is provided: The pipe E is screwed into the part H, having head *h*, which fits loosely in the head G, while the lower end, *h'*, is provided with a

series of projections fitting in an equal number of corresponding notches in the collar I, allowing a vertical motion only. The collar I is held firmly to the head G by means of set-screw *g*. The rubber ring J is forced over the projections of part H and compressed between the head *h* and the adjustable collar I.

K is a drip-pan, which is slipped over the stock A, and is provided with a conical projection in the center, which prevents the stream of water from splashing as it falls into the pan.

The operation of my invention is as follows: To let on the water the head G is turned a quarter-revolution. This, as will be observed by the construction given above, will also turn the key D, whereby the water-ways in the key come opposite the ports in the cock C, and thereby form a communication whereby the water finds its way up through pipe E and head G. The water is shut off by reversing the above operation. When the cock requires repair, or any accident occurs to the same which makes it necessary to take up the working parts, the set-screw *g* is withdrawn and the head G taken off. A tube of such size as will pass between the inside of stock A and part H, and having two notches filed across the lower end, so as to engage with projections *c c*, is placed in position, and the cock, with all its working parts, can be unscrewed and readily removed. To replace the same the pipe E, with the cock attached, is let into the stock A, and the tube, which is used as a key, is again put over the cock where the notches engage with the projections *c c*, and is screwed down firmly. The head G is then replaced and the adjustable collar I is forced up against the rubber ring J, compressing the same, so as to fill in the space between the part H and head G, thereby making it water-tight, and also taking up the weight of the pipe E. The set-screw *g* is then tightened and the hydrant is ready for use.

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

1. A hydrant having the key D of cock C tapering upward, to allow the pressure of the water to force the key into the cock, and provided with the cock C, screwed to the elbow B, as and for the purpose above described.

2. The pipe E, attached to and having a water-communication with key D by coupling F, as above specified.

3. The part H, having head *h*, and radial projections *h'* screwed on pipe E, in combination with the adjustable collar I, held by set-screw *g*, and the rubber J, operating as and for the purpose set forth.

4. The drip-pan K, having the interior central elevation, in combination with stock A, attached thereto, and constructed and operated as above specified.

T. VAN KANNEL.

Witnesses:

JOHN F. DETERS,
ABR. VAN KANNEL.