

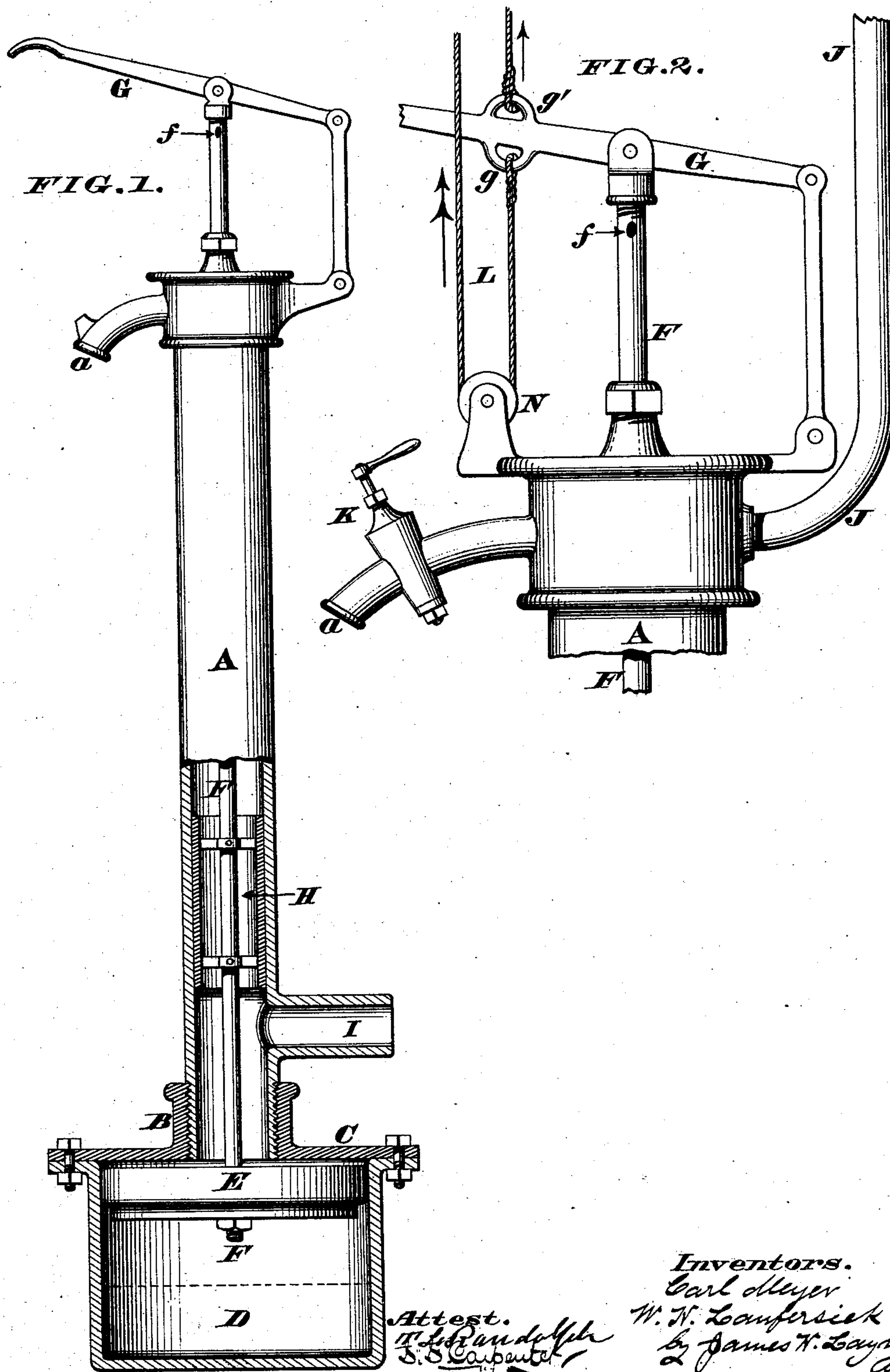
(No Model.)

C. MEYER & W. H. LAUFERSICK.

HYDRANT.

No. 291,068.

Patented Jan. 1, 1884.



Attest.
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UNITED STATES PATENT OFFICE.

CARL MEYER AND WILLIAM H. LAUFERSICK, OF CINCINNATI, OHIO.

HYDRANT.

SPECIFICATION forming part of Letters Patent No. 291,068, dated January 1, 1884.

Application filed June 19, 1883. (No model.)

To all whom it may concern:

Be it known that we, CARL MEYER and WILLIAM H. LAUFERSICK, both citizens of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Non-Wasting Hydrants, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to those devices commonly known as "non-wasting and non-freezing hydrants;" and the first part of our improvements consists in providing the piston or plunger with a hollow or tubular rod, in order that the air may readily escape from the chamber at the base of the hydrant when the plunger is depressed, the upper or exposed end of this hollow piston-rod being perforated, so as to allow a free ventage of the air, as hereinafter more fully described.

20 The second part of our improvements comprises a novel combination of pulley, rope, and lever, wherewith the piston can be operated by a person in one of the upper rooms or "flats" of a building, as hereinafter more fully described.

30 In the annexed drawings, Figure 1 is a sectionized elevation of the more simple form of our hydrant, the valve being shown elevated so as to permit a free passage of water through the stock. Fig. 2 is an elevation of the head of the more complex construction of the hydrant.

35 The hydrant-stock A is of such a length as to insure its base being at all times below the frost-line, at which point said stock is screwed into the neck B of cap C, the latter being bolted to the open upper end of a chamber, D, closed at bottom. Chamber D is traversed with a piston or plunger, E, adapted to play water-tight therein, said piston being attached to a rod, F, that is hollow or tubular, as more clearly seen in Fig. 4. The upper end of this piston-rod may be attached either to a hand-wheel, or crank, or lifting-lever, G, but must be provided with a suitable ventage, *f*. Furthermore, said hollow piston-rod carries a cylinder-valve, H, adapted to close the inlet I of the hydrant.

50 The hydrant just described is designed to be placed in the ground the ordinary distance and to discharge water only at the spout *a*.

Consequently chamber D must be of such a capacity as to hold the water that would otherwise remain in the stock when the hydrant is closed. When lever G is elevated, piston E is drawn up to the top of chamber D, and the lower end of valve H is above the inlet I, thereby allowing water to enter the stock A, flow freely through said valve, and finally be discharged at the spout *a*. To close the hydrant, lever G is forced down, thereby driving the piston E to the bottom of chamber D, as indicated by the dotted lines in Fig. 1, which act causes valve H to cover the end of inlet I, and thus effectually cuts off the supply of water. It is evident the piston E could not be forced down unless some arrangement was made to prevent the imprisonment of air beneath said piston; but this difficulty is overcome by the provision of the tubular rod F, which allows such air to pass through it and escape at the ventage *f*. Consequently the piston is depressed with the utmost ease, the space above said piston serving to retain the water that would otherwise remain in the stock and be liable to freeze up in the winter season and burst the hydrant. In Fig. 2 the hydrant is arranged to discharge water either at the spout *a* or to carry it through a pipe, J, to the upper rooms of a building; hence the chamber for such a hydrant must be sufficiently capacious to retain not only the water in stock A, but also all that may collect in the pipe J and its attachments. This pipe is to have on every floor a faucet or cock similar to the one K, the simple opening of which will furnish water, but in order to close the hydrant at night, and without being compelled to descend to the yard, a person can pull the rope or chain L in the direction of the double-headed arrow, which act will force the piston down within its chamber, and thus drain the stock A and all its connections.

95 The hydrant can be opened in the morning by pulling said rope or chain in the direction of the single-headed arrow. This rope passes around a sheave, N, journaled in the hydrant-head, and also around a similar sheave secured near the top of the house, the opposite ends of said rope being fastened to loops *g g'* of lever G.

We claim as our invention—

1. In combination with the stock A I, cham-

ber D, and piston E, of a non-wasting hydrant, the hollow piston-rod F, carrying the cut-off H, and having near its upper end a ventage, *f*, that permits the escape of air from chamber D when said piston is depressed, as herein described.

2. In combination with a non-wasting hydrant having a hollow piston-rod, F, provided with a plunger, E, cut-off H, and ventage *f*, which ventage permits escape of air from the chamber D, as herein described, the valved

spout *a* K, pipe J, lever G, rope L, and sheave N, which lever, rope, and sheave enable said piston-rod to be operated from the upper stories of a house, substantially as explained. 15

In testimony whereof we affix our signatures in presence of two witnesses.

CARL MEYER.

WILLIAM H. LAUFERSICK.

Witnesses:

JAMES H. LAYMAN,

SAML. S. CARPENTER.