

J. LEMMON & W. DEVAULT.

VALVES FOR PUMPS, &c.

No. 174,688.

Patented March 14, 1876.

Fig. 1.

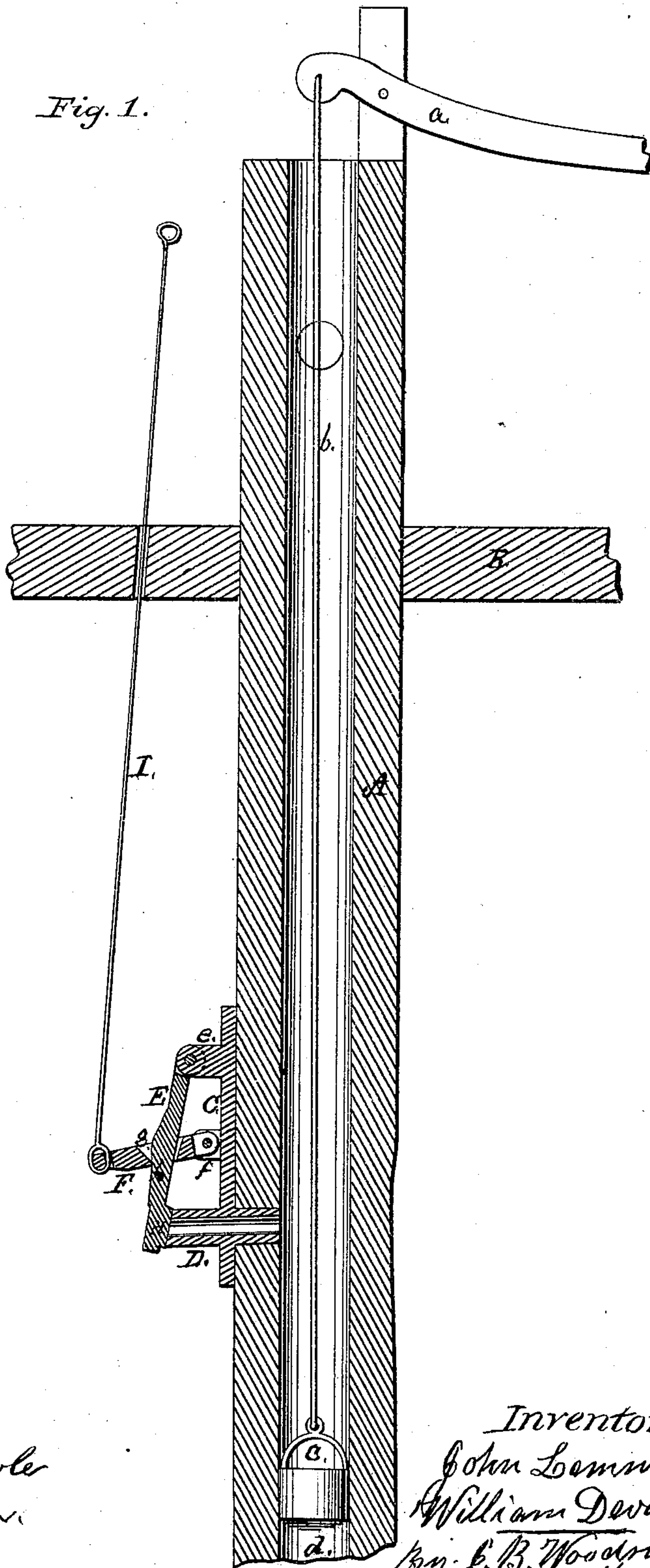
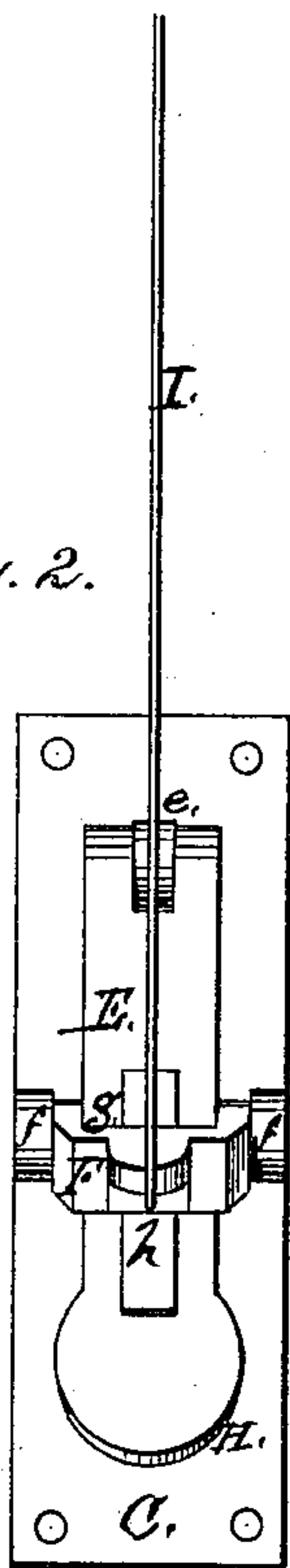


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE

JOHN LEMMON AND WILLIAM DEVAULT, OF COPE, OHIO.

IMPROVEMENT IN VALVES FOR PUMPS, &c.

Specification forming part of Letters Patent No. 174,688, dated March 14, 1876; application filed February 5, 1876.

To all whom it may concern:

Be it known, that we JOHN LEMMON and WILLIAM DEVAULT, of Cope, in the county of Belmont and State of Ohio, have invented a certain new and useful Improvement in an Anti-Freezing Water-Saving Pump Safety-Valve; and the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents a sectional view of a wood pump, showing our anti-freezing valve as attached—a side sectional view. Fig. 2 shows a vertical front view of the plate and valve attached.

Our invention consists in the arrangement and combination of the hinged-lever valve; the tube-outlet, the hinged stirrup or cam-lever for opening, closing, and holding the valve closed; and the vertical rod for operating, as will be hereinafter more fully described, referring to the drawings and the letters marked thereon, the same letter indicating the same part in both figures.

We make our improved anti-freezing water-saving valve of cast non-corrosive metal, all complete of itself, so that it can be put on to any pump or hydrant, whether the pen-stock be of metal or of wood, by making a hole through from the outside into the bore or cavity, at any desired point below the platform or surface of the ground, when used on a wood pump, as shown in Fig. 1.

A represents the pen-stock or vertical pump-log as set in a well, and B the plank platform or covering of the well; *a*, the pump-handle; *b*, the plunger-rod, and *c* the bail-box and valve, working down in the cavity *d* of the log A.

We construct the valve by casting the plate *c* with the tube D running through it at a right angle; also, on the face or outer side the projections or ears *e* and *f*, to which the hinged valve E and the stirrup or

cam-lever F are pivoted. The stirrup or cam-lever has a triangular opening, *g*, through the central portion of it, through which the hinged valve-lever E passes, the upper end being pivoted to the projection *e*, and the lower valve end covering the outer end of the tube or spout D. On the back or outside of the valve-lever E there is a raised incline plane, *h*, of such form as to hold the valve H firmly on its seat on the tube D, when the stirrup F is forced down on the incline *h*, the position of the valve-lever E being such that when the cam-lever F is drawn upward by the rod I it opens the valve instantly, and closes as quickly by forcing it down, and no pressure from within can open it or cause it to leak.

The valve, being an article by itself, can be so located on the pump that the rod I can be attached to the pump-handle *a*, and operate the valve by the extreme movement of the handle either up or down, so that by the last stroke the water may be prevented from dripping at the spout, causing a waste, or may be let back into the well, all above the spout D, to prevent the freezing, leaving the pump in condition to operate without priming.

What we claim is—

The arrangement and combination of the plate C with its spout D, the hinged-lever valve E with its incline *h*, the cam-lever F with its triangular opening *g*, and the rod I, operating substantially as herein shown and described.

In testimony whereof, we hereby subscribe our names.

JOHN LEMMON,
WILLIAM DEVAULT.

Witnesses:

W. A. SHARON,
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