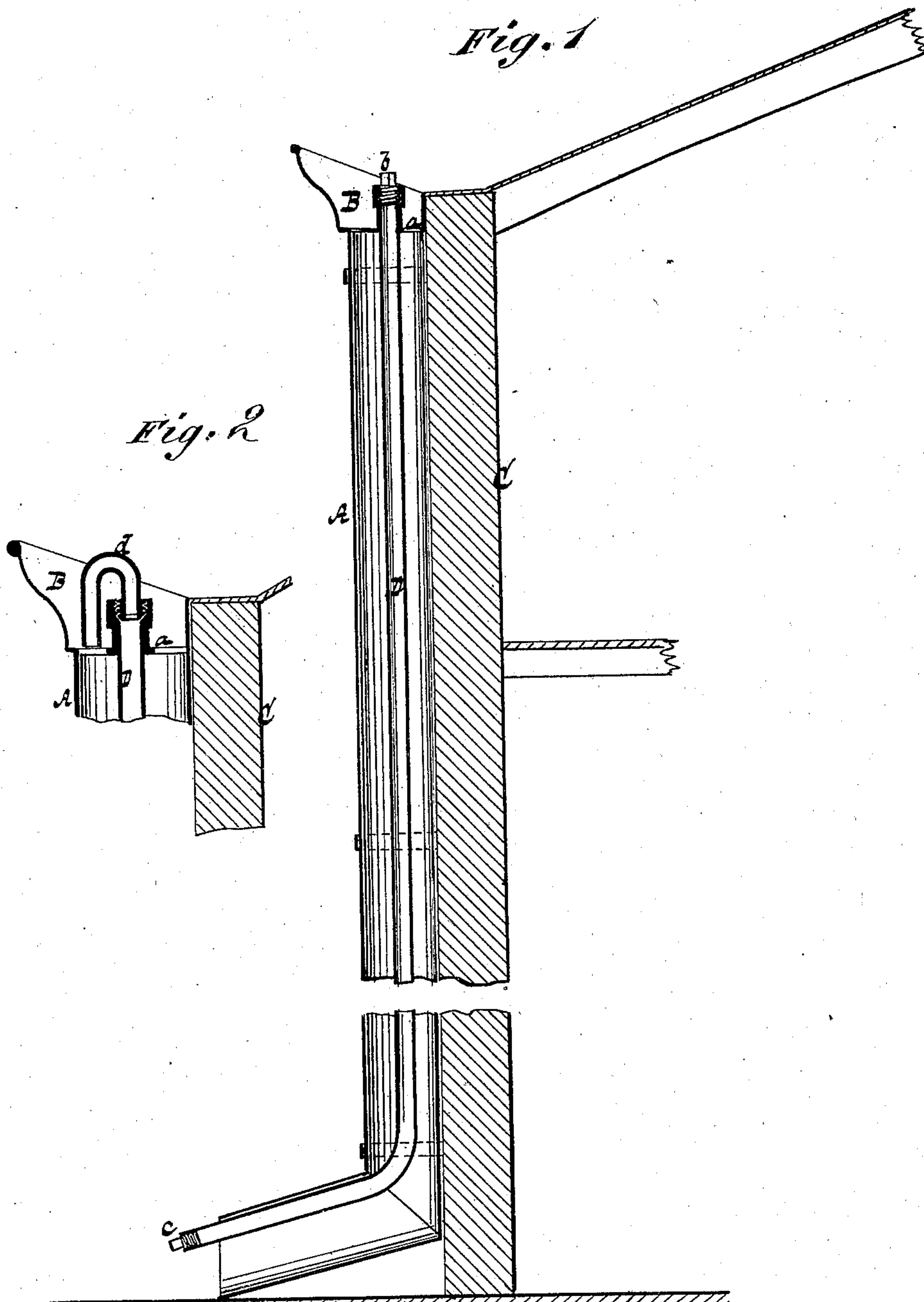


P. SAUERESSIG.
Leader-Pipe.

No. 203,781.

Patented May 14, 1878.

Fig. 1



WITNESSES:

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INVENTOR:

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UNITED STATES PATENT OFFICE.

PETER SAUERESSIG, OF NEW YORK, N. Y.

IMPROVEMENT IN LEADER-PIPES.

Specification forming part of Letters Patent No. 203,781, dated May 14, 1878; application filed November 23, 1877.

To all whom it may concern:

Be it known that I, PETER SAUERESSIG, of the city, county, and State of New York, have invented a new and useful Improvement in Leader-Pipes, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 represents a vertical central section. Fig. 2 is a similar section of the same when arranged for the injection of steam.

Similar letters indicate corresponding parts.

This invention consists in the combination, with a leader-pipe, of an internal or thawing pipe extending throughout its entire length, and provided with top and bottom screw-plugs, so that if the leader-pipe becomes filled with ice such ice can be readily thawed by passing hot water or steam into or through the internal pipe. With the internal pipe and the leader is combined a return-bend, adapted to be secured in the upper end of the internal pipe, so that, when steam is injected into the bottom end of said internal pipe, the steam which exhausts at the top is blown back into the leader, for the purpose of assisting in thawing the ice in said leader.

In the drawing, the letter A designates a leader-pipe, which extends from the eaves-trough B, and is secured to a building, C, in any suitable manner. In the interior of this leader-pipe is placed a secondary pipe, D, the diameter of which is considerably smaller than that of the leader-pipe, and which is retained in position by a cross or bridge, *a*, fastened on the upper end of the leader-pipe, its lower end being made to follow the discharge-spout of the leader-pipe, and to extend a short distance beyond the same, as shown in Fig. 1.

The top end of the internal pipe D forms a screw-socket for the reception of a plug, *b*, which closes the same during the time when it is not to be used. The bottom end of said pipe is also closed by a screw-plug, *c*.

In cold weather, when the leader-pipe becomes choked with ice, the plug *b* is taken

out, and by pouring hot water into the internal pipe the ice can be readily melted, the hot water being allowed to stand in said pipe until the ice becomes melted; or, if one charge of hot water is not sufficient to produce the desired effect, such charge may be drawn off by temporarily removing the plug *c*, and then the charge can be repeated until the leader becomes freed from ice.

If desired, however, steam may be injected into the internal pipe D, and for this purpose both the plugs *b* and *c* are removed, and a return-bend, *d*, is inserted in place of the plug *b*, as shown in Fig. 2. The bottom end of the pipe D is then connected to a steam-supply pipe, and as the steam passes through the pipe D the ice in the leader-pipe is melted in a short time. The steam which exhausts at the top of the pipe D is carried back into the leader-pipe through the return-bend *d*, so that it assists in melting the ice therein.

By means of my invention a leader-pipe can be freed from ice at any time with comparatively little trouble.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with a leader-pipe, of an internal or thawing pipe extending through its entire length, and provided with top and bottom screw-plugs, whereby hot water or steam may be either passed through or injected into and retained in said internal pipe as long as desired, substantially as and for the purpose set forth.

2. The combination, with a leader-pipe and its internal thawing-pipe, of a return-bend adapted to be secured in the upper end of the thawing-pipe, substantially as and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 22d day of November, 1877.

PETER SAUERESSIG. [L. S.]

Witnesses:

W. HAUFF,

E. F. KASTENHUBER.