W. R. OSTRANDER.

PORTABLE FURNACES FOR THAWING LEADERS.

No. 188,662. Patented March 20, 1877.

Fig. 1.

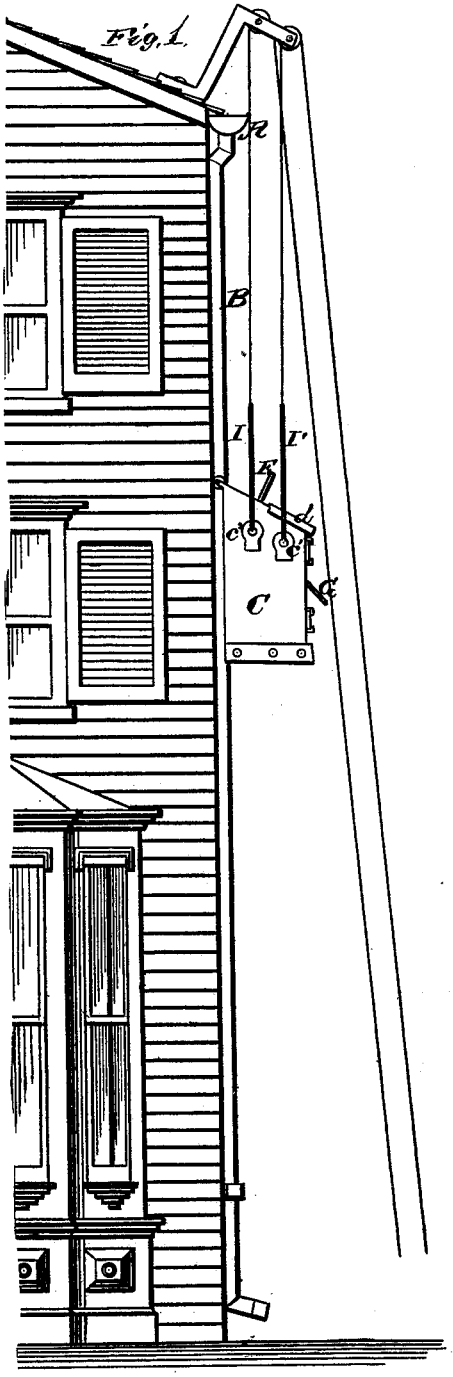


Fig. 2.

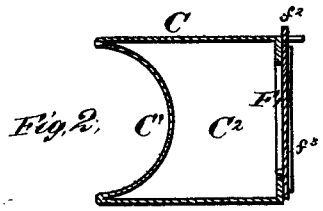
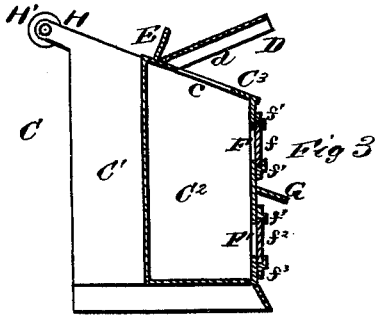


Fig 3



WITNESSES

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WILLIAM R. OSTRANDER, OF NEW YORK, N. Y.

IMPROVEMENT IN PORTABLE FURNACES FOR THAWING LEADERS.

Specification forming part of Letters Patent No. **188,662**, dated March 20, 1877; application filed January 27, 1877.

To all whom it may concern:

Be it known that I, WILLIAM R. OSTRANDER, of New York, in the county of New York and State of New York, have invented a new and valuable Improvement in Thawing Leaders; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of side view, showing my device applied to a dwelling; and Fig. 2 is a transverse sectional view thereof. Fig. 3 is a central vertical sectional view of the same.

The object of this invention is to thaw out "leaders," or pipes employed to conduct rain-water and melted snow and ice from the eaves-troughs of buildings to the ground, when said leaders become frozen during winter.

This object I attain by the employment of a furnace or heater so shaped as to partly surround a leader, and adapted to be raised or lowered from the roof, so as to apply its heat to all parts of said leader.

In the accompanying drawings, A designates an eave-trough attached under the eave of a roof, and B a leader extending downward therefrom. C designates a small furnace or heater, which has its rear curved inward at C^1, so as to conform to the shape of the outer half of said leader or discharge-pipe B, so that the fuel in fire-chamber C^2 will apply its heat to all accessible points of the circumference of said leader. Said heater C is provided with an inclined top, C^3, which extends on all sides beyond the body of said heater, so as to shed the rain or melted snow dripping from said roof. In the said inclined top is an opening, *c*, for the admission of fuel, which opening is covered by a lid, D, that sits down upon the whole front part of said heater-top C^3. Said lid is hinged to said top, and extends beyond it at the sides and front, the sides being provided with downward flanges *d d*, for the more effectual exclusion of moisture. On said top C^3, above the point where said lid D is hinged, there is also a forwardly-inclined transverse plate, E, which cuts off the moisture that may flow down from leader B upon said top C^3, and turns it to the sides of heater C, where there is no opportunity for it to reach the fire-chamber C^2. In the front of said heater C is upper draft-opening F, closed by door *f*, sliding transversely between guide-flanges f^1 f^1, and also lower draft-opening F′, provided in like manner with sliding door f^2 and guide-flanges f^3 f^3. By opening or closing said doors f f^2 more or less, the amount of draft can be regulated. Upper draft-opening F is sufficiently protected from rain, &c., by projecting top C^3; but lower draft-opening F′ is additionally guarded by a shed, G, which is attached to the front of heater C above said opening. The above construction effectually excludes moisture from the inside of said heater, and also prevents the fire contained therein from injuring the building.

The upper end of said heater is provided with two rearwardly-extending brackets, H H, having rollers H′ H′ attached thereto. The sides of said heater C are also provided with lugs c^1 c^2, to which are attached bails I I. To these bails ropes, or the ends of a rope, are attached, by means of which the said heater is raised and lowered, so as to pass over the whole length of leader B, while the rollers H′ H′ prevent said heater from coming into contact with the wall of the building, and also greatly reduce the friction against the same. As one pair of said lugs, c^1, is arranged in front of and below the other pair, c^2, the said heater will remain vertical when equal lengths of rope are used; but the inclination of heater C may be varied by tightening or slackening either one of the raising ropes or cords. In this way the said heater is conveniently applied to inclined pipes, as well as to vertical ones. The said heater may be raised directly by hand, or by the assistance of pulleys, or in any other suitable manner. Any suitable fuel may be employed, and the said heater may be used for thawing out pipes of any sort.

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

1. The heater C, provided with the rear recess C^1, in combination with the leader B, fitting into said recess, substantially as described, and for the purpose set forth.

2. Heater C, having bails I I′, one of said bails being attached to said heater in front of

and below the other, substantially as and for the purpose set forth.

3. Heater C, having top or roof C^3, extending beyond the body of said heater, lid D, raised plate E, and shed G, for the purpose of protecting the fuel-opening and draft-openings, substantially as and for the purpose set forth.

4. Heater C, provided with rollers H′ H′, brackets H H, and bails I I′, substantially as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

WILLIAM R. OSTRANDER.

Witnesses:

JOHN B. PECK,

JULIUS JACOBS.