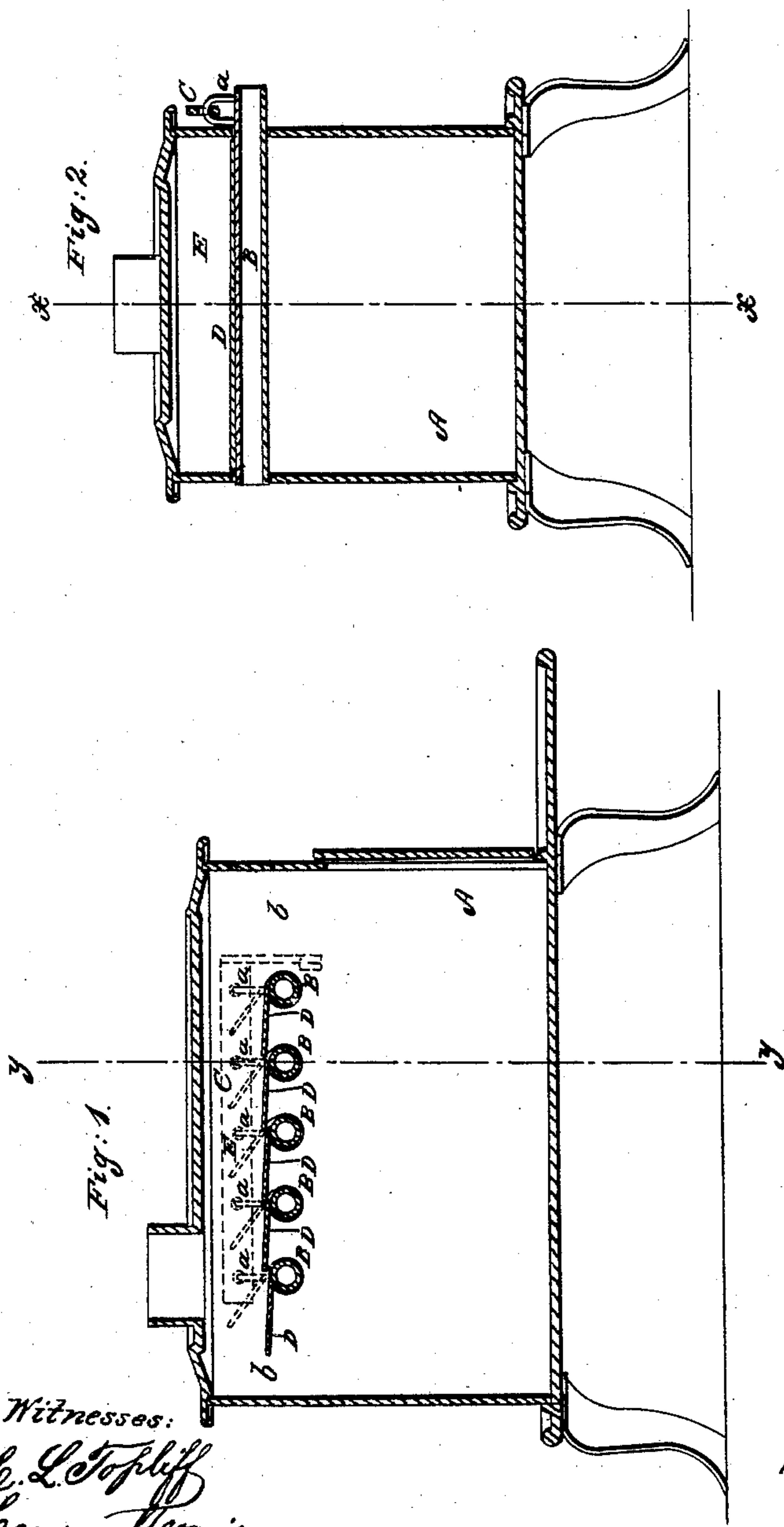


W. J. LYMAN.

Stove.

No. 44,538.

Patented Oct. 4, 1864.



Witnesses:
C. L. Topple
Henry Morris

Inventor:
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Attys.

UNITED STATES PATENT OFFICE.

WM. J. LYMAN, OF EAST HAMPTON, MASSACHUSETTS.

IMPROVED STOVE.

Specification forming part of Letters Patent No. 44,538, dated October 4, 1864.

To all whom it may concern:

Be it known that I, WILLIAM J. LYMAN, of East Hampton, in the county of Hampshire and State of Massachusetts, have invented a new and Improved Stove; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a side sectional view of my invention, taken in the line *x x*, Fig. 2; Fig. 2, a transverse vertical section of the same, taken in the line *y y*, Fig. 1.

Similar letters of reference indicate like parts.

This invention relates to a new and improved arrangement of damper placed within a stove in such a manner that they will, when turned or adjusted in a certain position, form a flue in order to give a sinuous route or passage to the draft and cause a greater amount of heat to be radiated from the stove than when a direct passage is allowed the draft, the dampers at the same time being capable of being so adjusted as to admit of a direct draft when required, as in kindling the fire.

The invention also relates to a novel construction of the axes or shafts of the dampers, whereby the former are made to serve as radiators to greatly augment the radiating power of the stove, as hereinafter fully set forth.

A represents a stove, which may be of any desirable form, and constructed for burning either wood or coal. In this instance the stove is represented as an ordinary quadrilateral wood-stove. In the upper part of the stove there are placed transversely a series of tubes, B. These tubes are in a horizontal plane, their ends passing through the sides of the stove and allowed to turn freely therein. The tubes at one end project some distance through the stove, and are each provided with an arm, *a*. These arms are all connected to a bar, C, by moving which the tubes B may all be simultaneously turned. Each tube B has a plate, D, attached to it. These plates extend entirely across the interior of

the stove, and they are of such a length that when turned down to their fullest extent the end of one plate will rest upon the tube B nearest to it, as shown in tint in Fig. 1, and thereby form a partition in the stove. The plates D, when thus turned down, form a flue, E, above them in the stove, a communication, *b*, between the flue E and the lower part of the stove being allowed at the front or back end of the flue or at both ends, as may be desired. This partition and flue, it will be seen, give a sinuous route or passage to the draft in the stove A, and thereby cause more heat to be radiated from the stove than if there were no flue or partition, and when the sinuous draft is not required the plates D are turned upward, as shown in red in Fig. 1, so as to destroy the partition and admit of a direct draft. These plates may be turned a greater or less distance upward, so as to regulate the draft as may be required. The plates D are turned, it will be understood, by turning the tubes B through the medium of the bar C. The tubes B are open at both ends so as to admit of the air passing freely through them, and each tube therefore is a radiator, the air in passing through them becoming heated.

I do not confine myself to one series of tubes and plates or dampers, as two or more series may be used to form a plurality of flues, and the invention may be applied to any form of stove.

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

1. The employment or use in a stove of one or more series of axes or shafts provided with plates or dampers arranged so as to form, when turned in a certain position, flues within the stove, so as to give a sinuous route to the draft, and also admit of being turned so as to allow a direct draft when required.

2. In combination with the dampers, the axes or shafts hereof, of tubular form, to serve as radiators, substantially as set forth.

WILLIAM J. LYMAN.

Witnesses:

W. B. HALE,
S. M. SMITH.