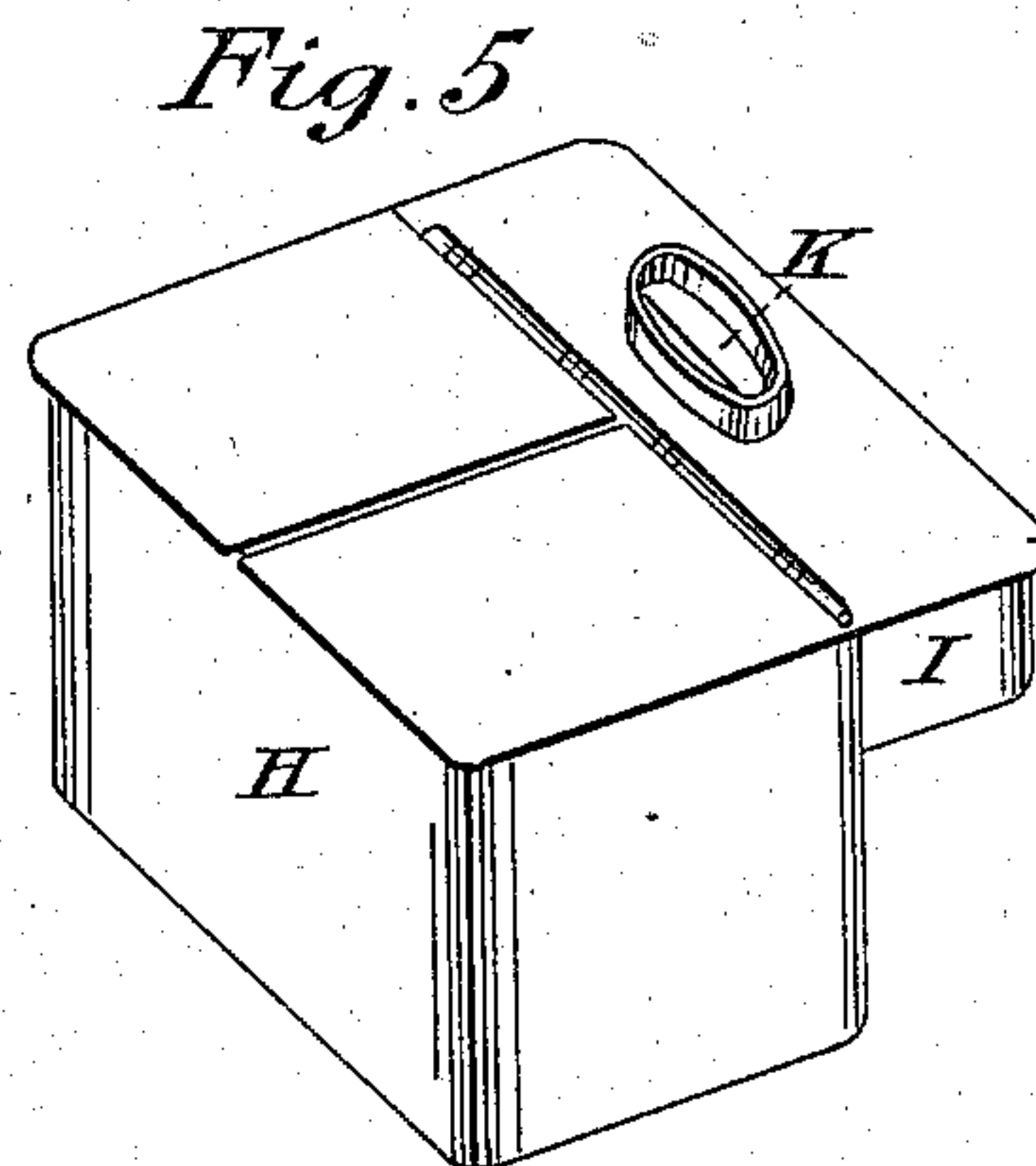
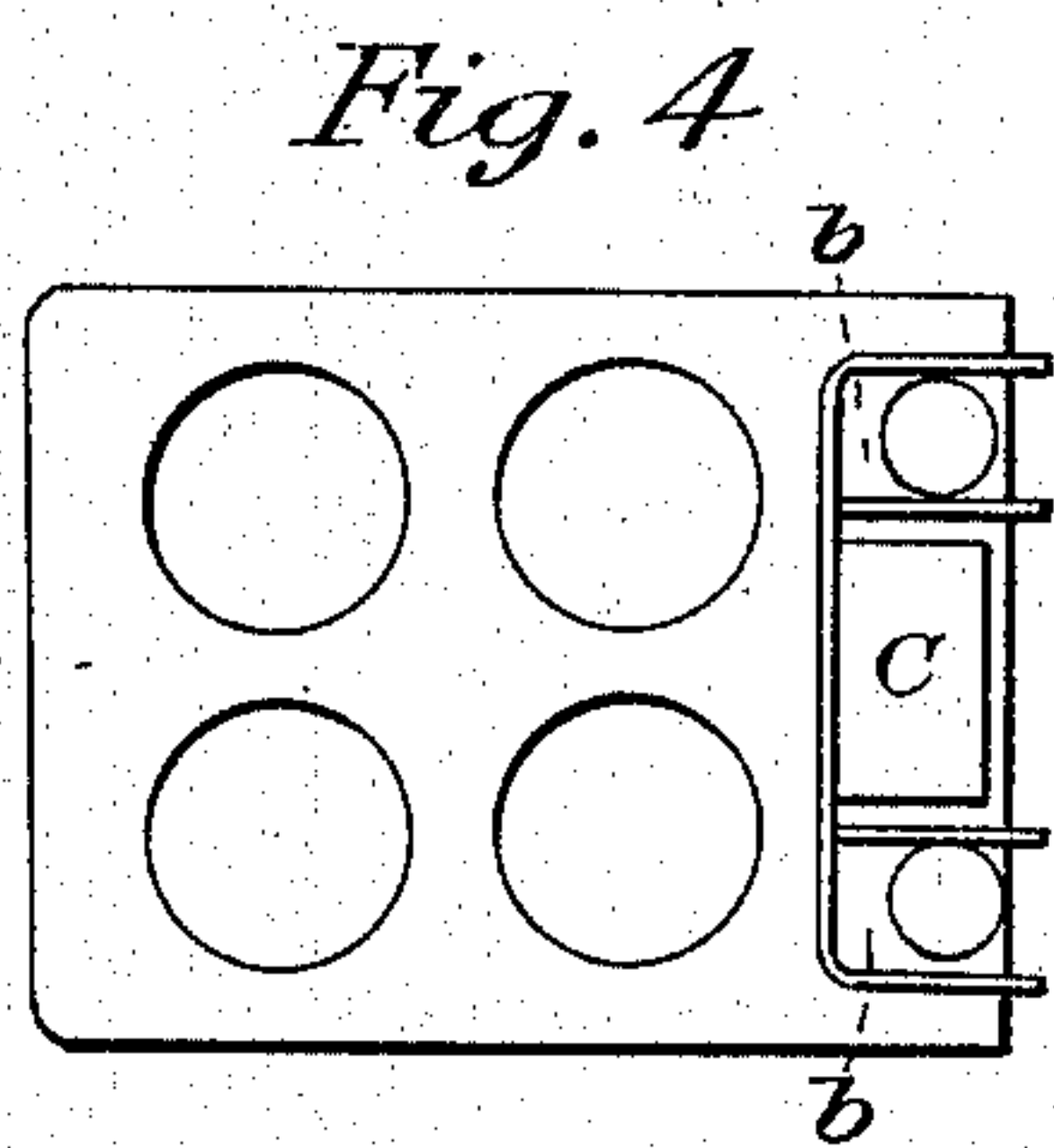
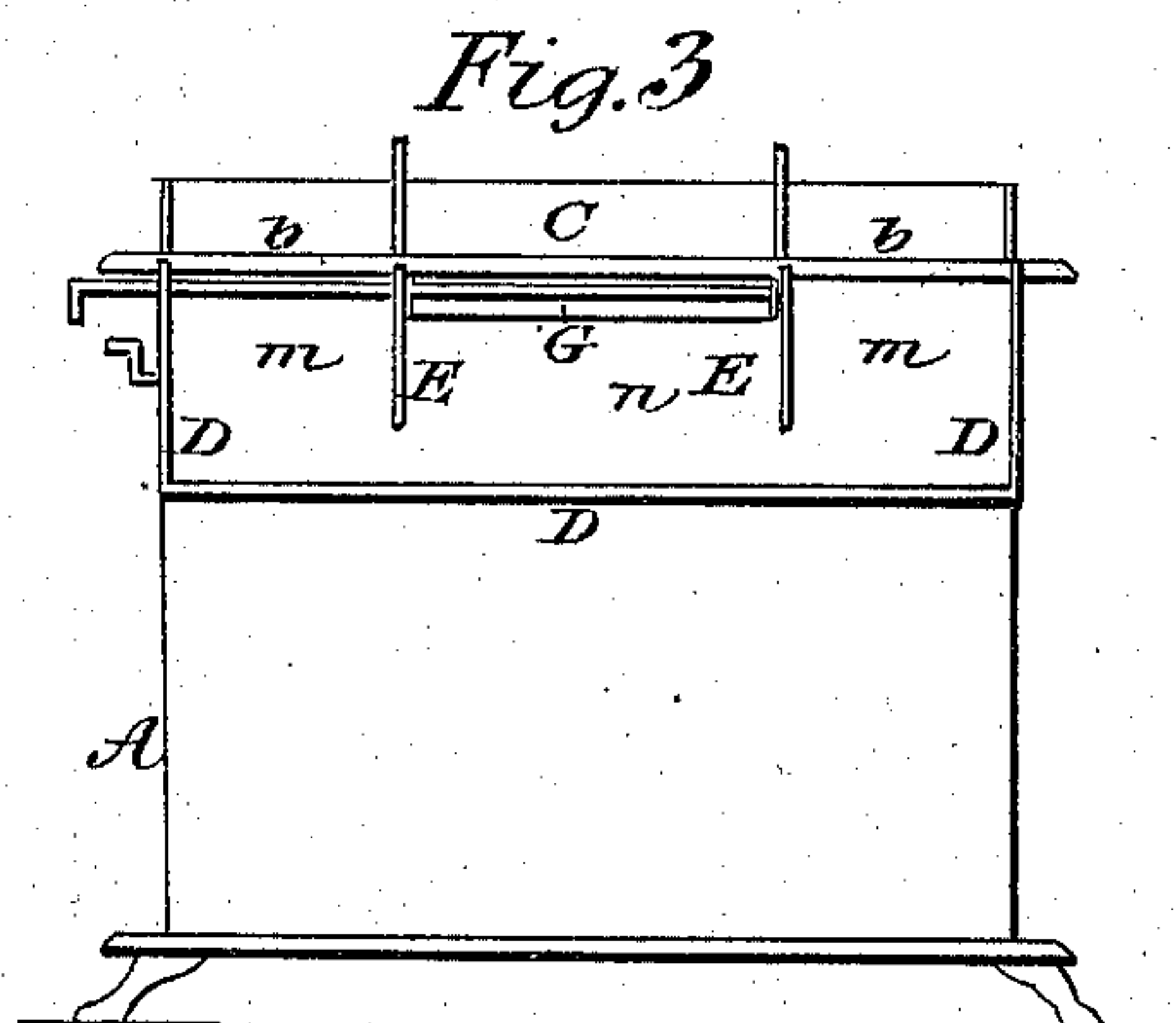
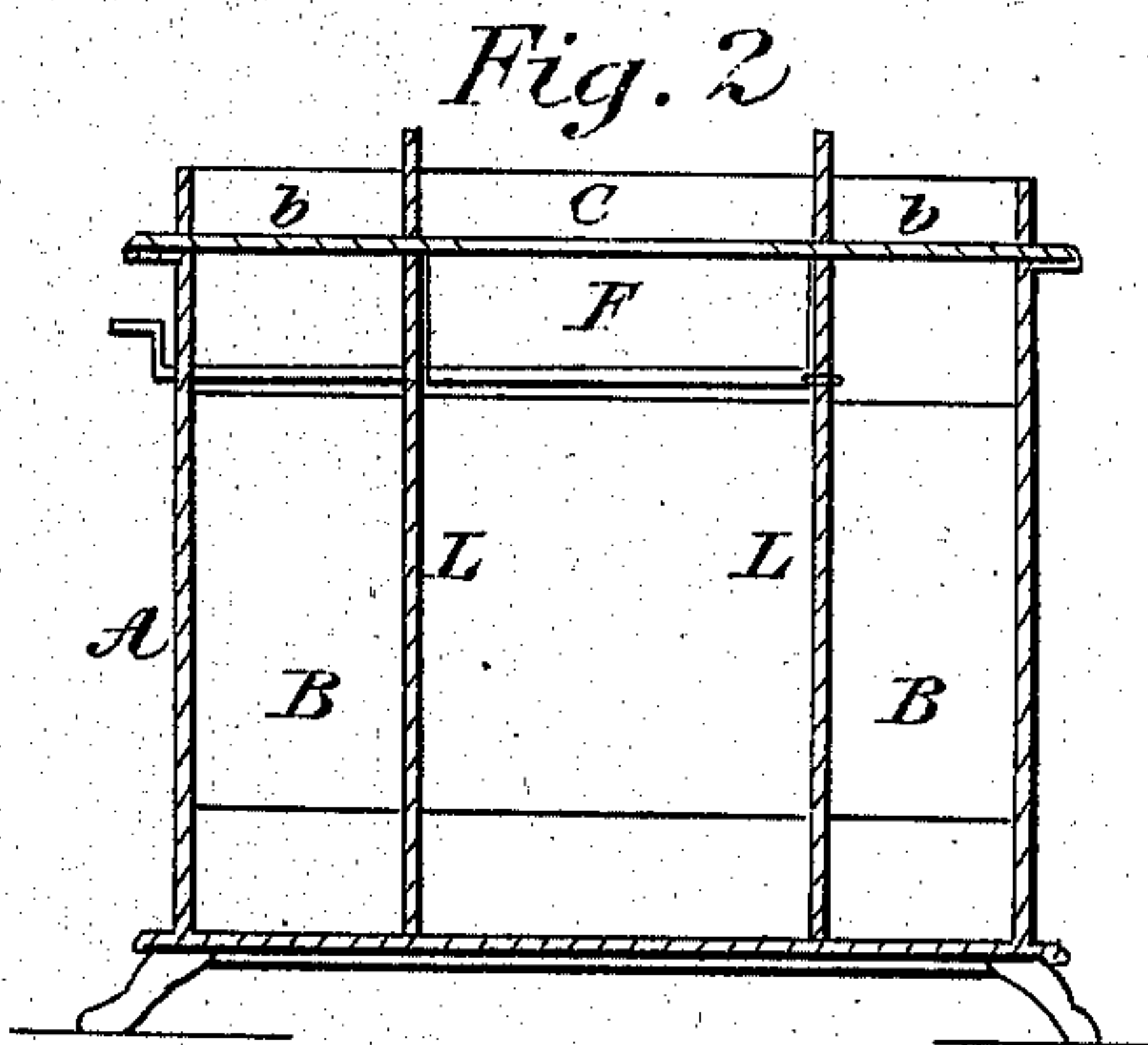
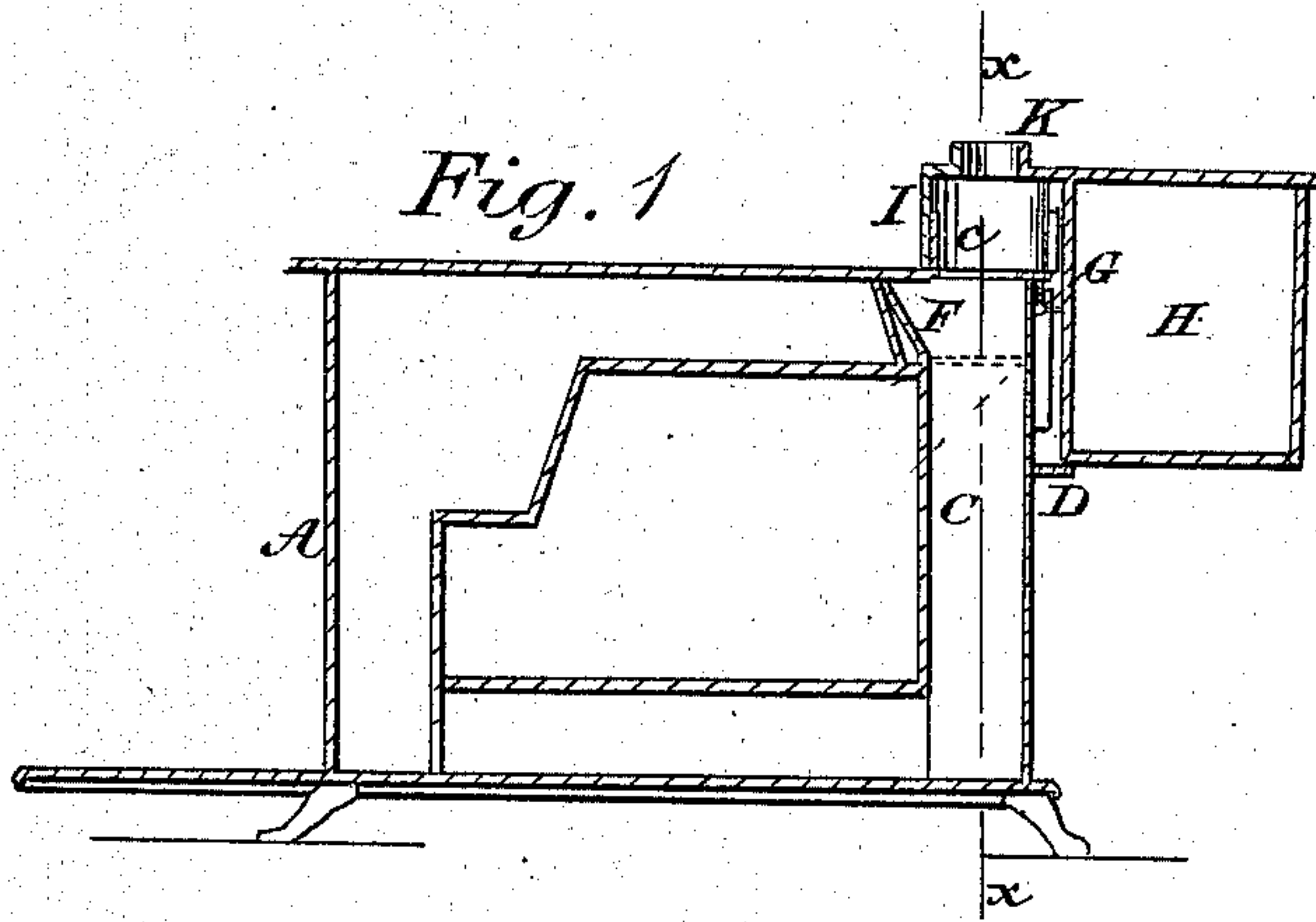


N. S. VEDDER.  
Cooking Stove.

No. 95,170.

Patented Sept. 21, 1869.



*Witnesses:*  
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*Attorneys*



# United States Patent Office.

NICHOLAS S. VEDDER, OF TROY, NEW YORK.

Letters Patent No. 95,170, dated September 21, 1869.

## IMPROVEMENT IN COOKING-STOVES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, NICHOLAS S. VEDDER, of Troy, in the county of Rensselaer, and State of New York, have invented new and useful Improvements in Water-Reservoir Cooking-Stoves or Ranges; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, and the letters of reference marked thereon, forming part of this specification, in which—

Figure 1 is a central longitudinal vertical section of my improved water-reservoir cooking-stove;

Figure 2 is a vertical cross-section, taken at the line *x x*, fig. 1, of the same;

Figure 3 is a rear view, with the water-reservoir removed;

Figure 4, a top view of the top plate of the stove; and

Figure 5, a perspective view of the water-reservoir.

My invention consists, first, in the extension of the ascending and descending oven-heating flues above the top plate of the stove, and against the upper portion of the front of the reservoir, and communicating with a flue or heating-chamber between the lower portion of the reservoir and the back plate of the stove.

My invention also consists in the descending and ascending flues against the front part of the reservoir, in combination with the ascending and descending oven-heating flues.

And my invention further consists in a cooking-stove, a water-reservoir, having its back and ends naked, and front covered by ascending and descending heating-flues, which are in connection with the ascending and descending oven-heating flues.

And my invention further consists in the dampers, arranged to regulate the passage of the gases of combustion through the ascending and descending flues, between the back part of the stove and the front of the reservoir.

To enable others skilled in the art to make and use my improved stove, I will proceed to describe its construction and operation, reference being had to the accompanying drawings.

A is an ordinary stove, provided with ascending and descending oven-heating flues B B, and a draught-flue, C. These flues are extended beyond the top plate of the stove, as seen at *b b c*, and form, as it were, a continuation of the oven-heating and draught flues.

On the rear of the back plate of the stove is cast, or otherwise secured, a rim or flange, D, which forms an air-space when the reservoir is attached to the stove. This air-space is divided into three compartments, by partitions E E, which extend from the top of the extension-flues to within a short distance of the bottom of the rim D, as seen in fig. 3.

A damper, F, is arranged within the draught-flue C,

to regulate the draught and escape of heat, and another damper, G, is placed within the central flue, formed by the partitions E E, at the rear of the stove.

The top plate of the stove, with its extension-flues, (see fig. 4,) is placed upon the stove, and the reservoir H, with an extension, I, is secured to the rear end of the stove, in the following manner:

The extension I is made of a depth equal to the height of the extension-flues *b b c*, and just wide enough to overlap the said flues, and allow the reservoir to be embraced by the ends and bottom of the rim D, forming the air-space, and coming in close contact with the partitions E E. The top of the extension I is covered, with the exception of a stove-pipe hole, K, immediately over the draught-flue C, the bottom edge of the extension I fitting down close on to the top plate of the stove, as seen most clearly at fig. 1.

The partitions L L, forming the oven-heating and draught flues, are returned a short distance over the oven-plate, forming a flange for the damper F to close against.

The operation of my improved stove is as follows:

The damper F being open, the heat, generated in the front of the stove, will pass around the arm and escape through the draught-flue C, the rising heat, which escapes the action of the draught, rising up the extension ascending flues *b*, heating the upper portion of the front of the reservoir, and passing down into the flues *m m*, behind the back plate of the stove, and up into the centre flue *n*, heat the lower part of the front of the reservoir, the centre flue *n* being closed by the damper G.

When it is desired to intensify the heat against the front of the reservoir, the damper F is closed, forcing all the heat into the ascending and descending oven-heating flues, from whence it escapes into the flues *b b*, is then drawn into the flues *m m*, along and between the ends of the partitions and the bottom rim D, into the central flue *n*, and finds an exit (if the damper G be opened) into the extension draught-flue C, and out through the exit K.

It will thus be seen, that by the use of the dampers F and G, and the arrangement of the many flues, the heat around the oven, or against the front of the reservoir, may be regulated at pleasure.

Having fully described the construction and operation of my improved stove,

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

The flues *b c b*, above the top plate of the stove, and in line with the oven-heating and draught flues B C B, against the upper part of the front side of the reservoir H, in combination with the heating-flues *m n m*, substantially as and for the purpose set forth.

Also, the ascending and descending flues *m m*, in



combination with the ascending and descending oven-heating flues B C B, in the manner and for the purpose set forth.

Also, the water-reservoir, having its back and ends naked or uncovered, and its front covered by the flues *m n m*, when the said flues are in connection with the oven-heating flues, as hereinbefore described, for the purpose set forth.

Also, in combination with the stove and reservoir,

when constructed and arranged as described, the dampers F and G, operating substantially in the manner and for the purpose set forth.

In testimony whereof, I have hereunto set my hand, this 7th day of June, A. D. 1869.

NICHOLAS S. VEDDER.

Witnesses:

H. CLAY BASCOM,  
ARTHUR GILMEN.