

L. WOOD.  
Cooking Stove.

No. 4,719.

Patented Aug. 26, 1846.

FIG. 1.

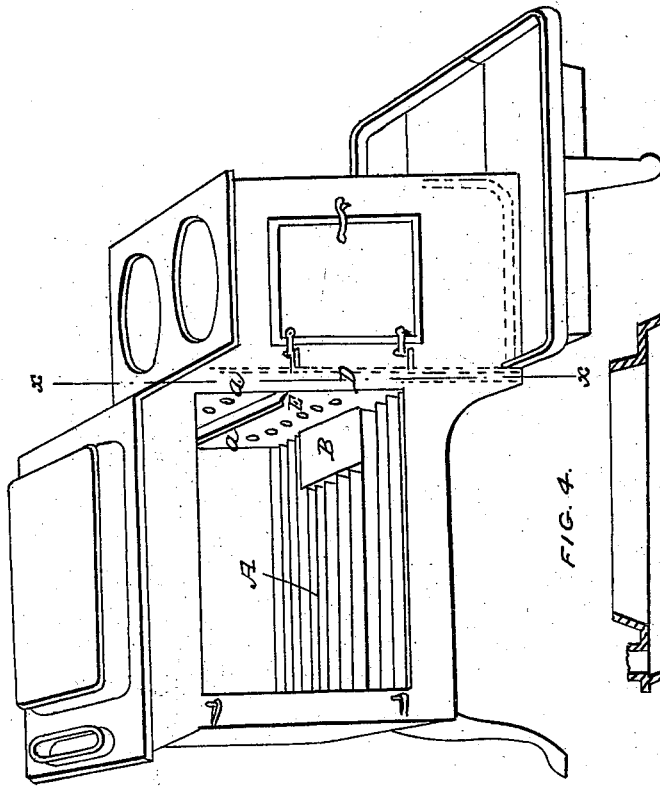


FIG. 4.

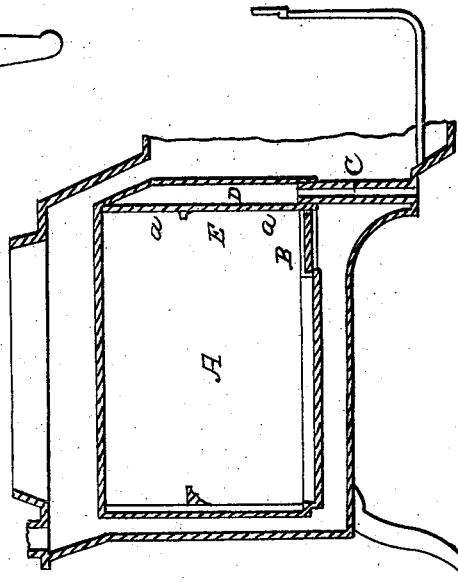


FIG. 2.

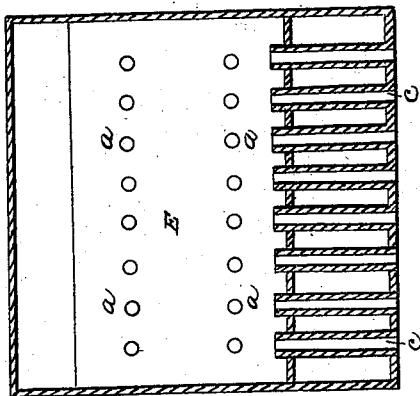
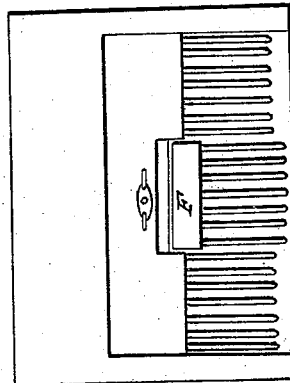


FIG. 3.



# UNITED STATES PATENT OFFICE.

LOFTIS WOOD, OF NEW YORK, N. Y.

## COOKING-STOVE.

Specification of Letters Patent No. 4,719, dated August 26, 1846.

*To all whom it may concern:*

Be it known that I, LOFTIS WOOD, of the city of New York, in the State of New York, have invented certain new and useful Improvements in the Manner of Constructing Cooking-Stoves; and I do hereby declare that the following is a full and exact description thereof.

In the accompanying drawing Figure 1 is a perspective view of my improved stove. Fig. 2 is a vertical section of it from side to side in the line *x x* of Fig. 1. Fig. 3 is a front view of the grate and of the front plate of the stove, and Fig. 4 is a vertical section through the middle of it from front to back, the back part only of the fire chamber being included in this section; in each of these figures where the same parts are represented they are designated by the same letters of reference.

The oven A is represented as having its bottom plate corrugated, but this is not claimed as a new feature and my improvements are independent thereof; the first of these consists in the preventing of the burning out, or warping of this plate at that part where it is immediately exposed to the direct action of the fire, which is at the part marked B. In this part, I form a recess in the plate, which I fill with a plate of soap stone, or fire clay, which can be readily renewed at any time and will save great cost and prevent much inconvenience in the continued use of the stove.

My second improvement consists in the particular arrangement of the part of the stove by which I introduce heated air into the oven. This I do through tubular grate bars situated immediately back of the fire-chamber, against which bars the fuel lies, and between which the heated air and gases pass into the flue under the oven. These tubes extend down through the bottom plate of the stove and terminate above in an air chamber, from which the air that has been heated passes into the oven through holes made for that purpose in the fore plate thereof. C, C, Figs. 2 and 4, show these

tubular bars in section, and their place is also shown by the dotted lines C in Fig. 1. D is the air chamber into which they lead, *a, a, a*, Figs. 1, 2, and 4, are holes through the front plate E of the oven through which the air passes into said oven. It will be manifest that the cold air which will enter these tubes will become highly heated in passing through them, as well as by the heat communicated to it by the back plate of the fire chamber. The tubes C are at the same time preserved from burning out by the passage of the cold air through them. By this arrangement the heating of the oven is facilitated, and equalized, whilst the durability of the parts exposed to the fire is much increased.

The draft from the fire chamber passes directly into the flues both above and below the oven, and I have shown the respective openings, or channels as without valves or dampers; but these may be added should it be deemed expedient.

To discharge the contents of the grate I suspend the middle portion of it by joint pins at the back, and connect the bars constituting this drop part with a portion of the front plate of the fire chamber, as shown at F, Fig. 3, where this drop part is represented as partially opened.

Having thus fully described the nature of my improvements in the cooking stove, and pointed out the manner in which the same operates, what I claim therein as new and desire to secure by Letters Patent, is—

The particular manner in which I have arranged and combined the hollow grate bars C C by causing them to ascend vertically at the rear and lower part of the fire chamber from the bottom plate of the stove, and to conduct air, into the air chamber D, whence it passes into the oven through openings *a a a* in the fore plate thereof for the purpose and in the manner herein set forth.

LOFTIS WOOD.

Witnesses:

THOS. P. JONES,  
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