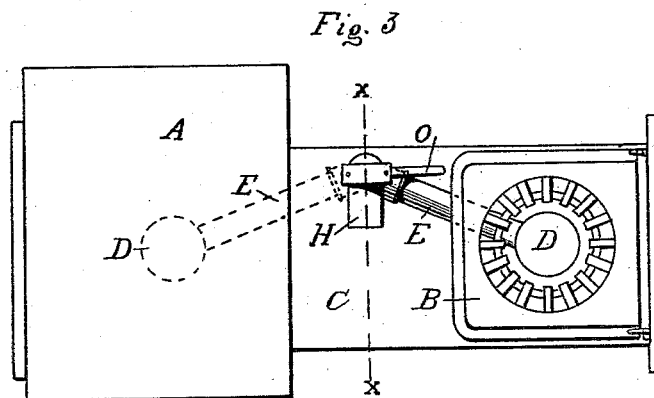
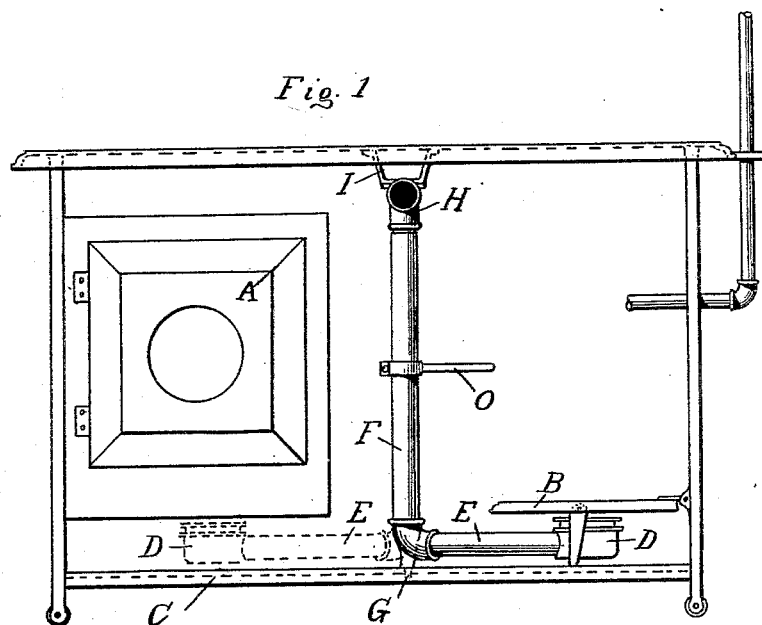


B. REIN.
VAPOR STOVE.

No. 384,391.

Patented June 12, 1888.



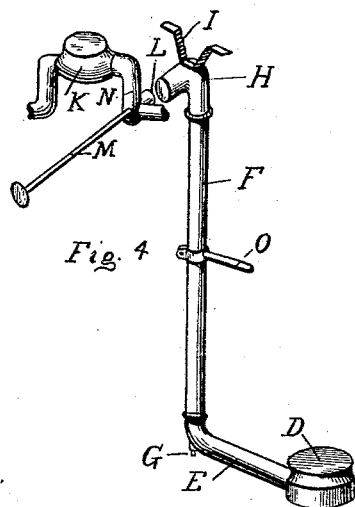
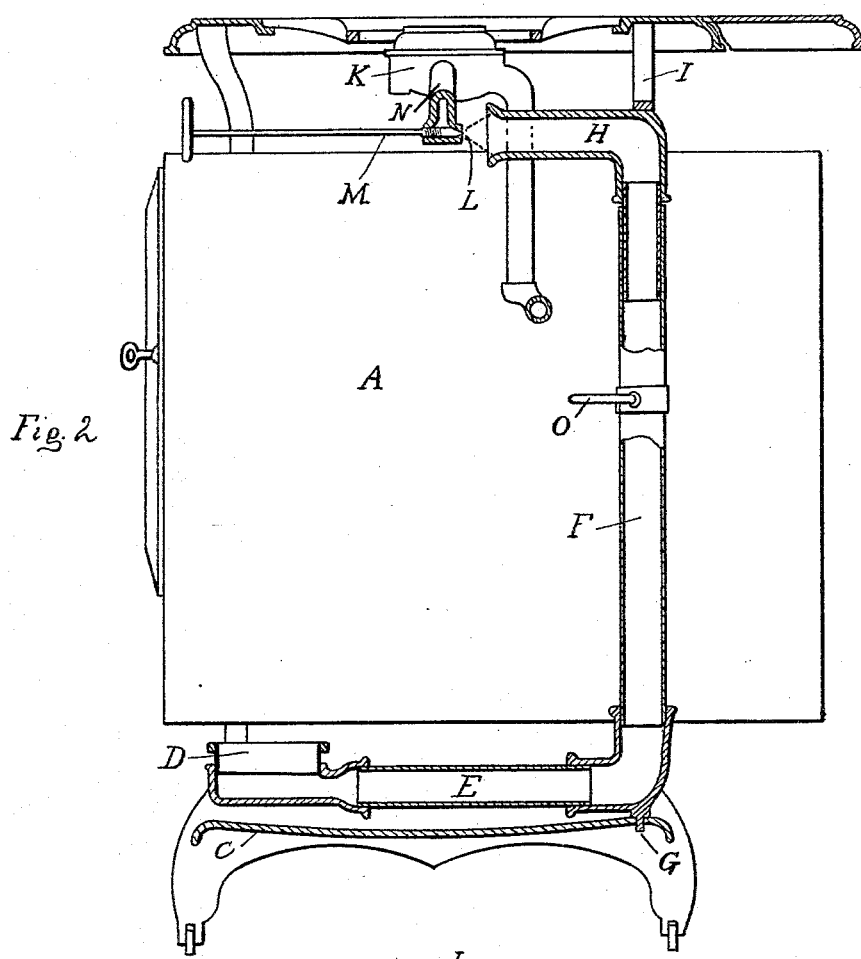
Witnesses:
R. M. Hulbert.
H. S. Sprague

Inventor:
Burnard Rein.
By *Adolph Barthel.*
Atty.

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Att'y.

UNITED STATES PATENT OFFICE.

BURNARD REIN, OF DETROIT, MICHIGAN, ASSIGNOR OF ONE-HALF TO
JACOB HALTEMAN, OF SAME PLACE.

VAPOR-STOVE.

SPECIFICATION forming part of Letters Patent No. 384,391, dated June 12, 1888.

Application filed June 22, 1887. Serial No. 242,199. (No model.)

To all whom it may concern:

Be it known that I, BURNARD REIN, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Vapor-Stoves, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to new and useful improvements in vapor-stoves; and the invention consists in the peculiar construction and arrangement of a low-down swinging burner, all as more fully hereinafter described.

In the accompanying drawings, which form a part of this specification, Figure 1 is a front elevation of a vapor-stove to which my invention is applied. Fig. 2 is a cross-section thereof on the line *x x*. Fig. 3 is a plan. Fig. 4 is a detached perspective view of the swinging burner.

Fig. 1 shows in elevation a vapor-stove of known construction and operation, and wherein A is the oven, and B a low-down cooking-shelf, both being adjusted below the upper table, respectively to the left and right, and at such a distance above the lower shelf, C, of the frame to admit of the free swinging of the burner D beneath them. This burner, which forms the subject of my invention, is secured upon the end of a horizontal swinging arm, E, which forms a horizontal bend or continuation of the vertical tube F, which extends between the upper and lower shelves, or nearly so, and turns on a pivot formed above and below in its axial line, the lower pivot being formed by means of a pintle, G, stepped into the lower shelf and the upper one by a sleeve-connection between the upper end of the tube F and the elbow or fixed pipe-joint H. The latter is rigidly and preferably detachably supported in position in any suitable manner, such as by means of a hanger, I, as shown. This fixed elbow H projects forwardly, and such extension extends into proximity to the generating-burner K, and forms the communicating-tube, into which the jet L discharges the vapor when the valve M is opened, such generating-burner K having a suitable vapor-

supply chamber, N, for the purpose of supplying the burner D.

O is a handle secured to the vertical pipe F at suitable height for easy operation.

In practice the parts being constructed and arranged substantially as described, they are intended to operate as follows: By opening the valve M the vapor-jet is discharged into the communicating-tube J, and the gas then passes down the pipe F into and through the arm E to the burner D, where it is ignited in the usual manner. By operating the handle O the burner may be swung on its pivots at will, either under the oven or under the shelf, as shown, while in a mid-position it is brought well forward for ready ignition.

What I claim as my invention is—

1. The combination, with a low-down oven and cooking-shelf supported at opposite ends of the stove, of a swinging tube pivotally secured on a vertical axis between said oven and shelf and forming the means for carrying vapor from the generating-burner to a low-down burner carried by said swinging tube, substantially as described.

2. The combination, with the generating-burner, low down oven, and cooking-shelf supported at opposite ends of the stove, of a low-down burner carried on a swinging tube between said oven and shelf, and means, substantially as described, for conducting the vapor from the generating-burner through the swinging tube into said low-down burner, all arranged to operate substantially as described.

3. The combination of the generating-burner K, and tube F, having a sleeve-joint at its upper end, with the communicating-tube and a pivot-bearing at its lower end, horizontal arm E, burner D, and handle O, all arranged to operate substantially as described.

In testimony whereof I affix my signature, in presence of two witnesses, this 17th day of June, 1887.

BURNARD REIN.

Witnesses:

H. S. SPRAGUE,
P. M. HULBERT.