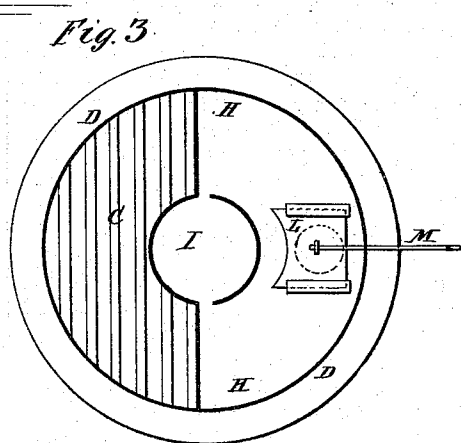
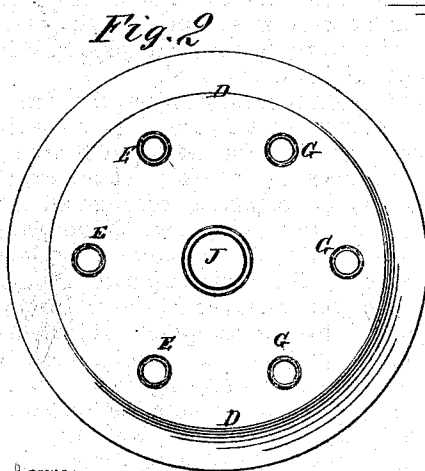
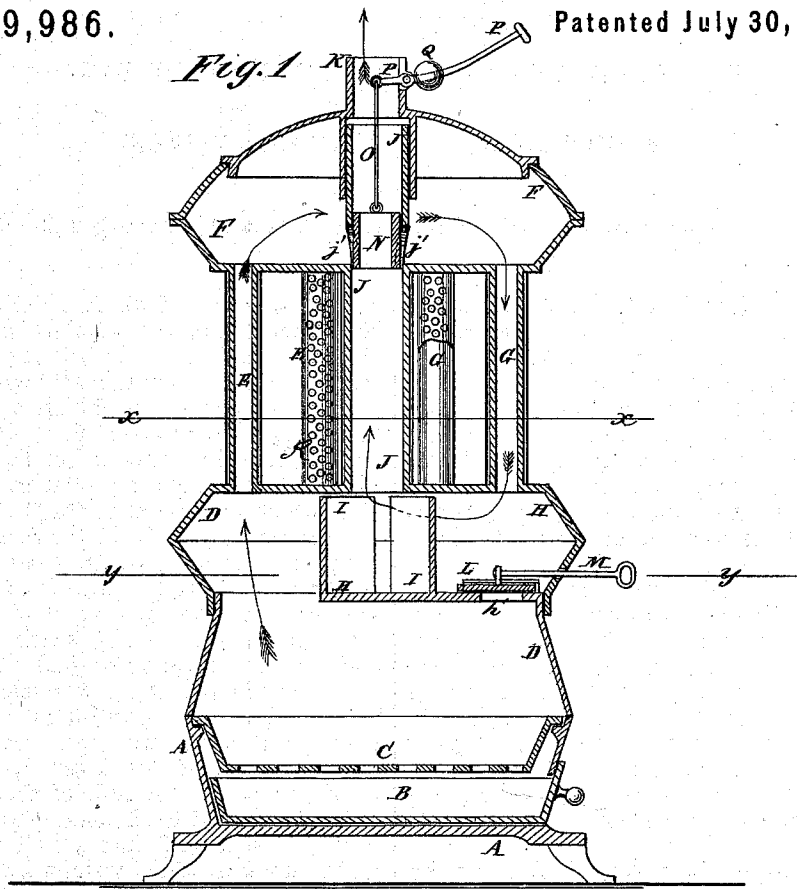


T. SCANTLIN.
Heating-Stoves.

No. 129,986.

Patented July 30, 1872.



Witnesses:
A. W. Almqvist
N. A. Graham

Inventor:
Thomas Scantlin.
PER *mmf*
Attorneys.

UNITED STATES PATENT OFFICE.

THOMAS SCANTLIN, OF EVANSVILLE, INDIANA.

IMPROVEMENT IN HEATING-STOVES.

Specification forming part of Letters Patent No. 129,986, dated July 30, 1872.

Specification describing a new and useful Improvement in Heating-Stove, invented by THOMAS SCANTLIN, of Evansville, county of Vanderburg and State of Indiana.

Figure 1 is a detail vertical section of my improved stove. Fig. 2 is a detail horizontal section of the same taken through the line *x x*, Fig. 1. Fig. 3 is a detail horizontal section of the same taken through the line *y y*, Fig. 1.

Similar letters of reference indicate corresponding parts.

My invention has for its object to furnish an improved heating-stove which shall be so constructed and arranged as to utilize the most of the heat contained in the smoke and other products of combustion before allowing them to escape into the chimney, and so as to enable a direct draft to be conveniently obtained when desired; and it consists in the construction and arrangement of various parts of the stove, as hereinafter more fully described.

A is the base of the stove, which forms the ash-pit, and which contains the ash-drawer B. C is the grate, which is placed in the upper part of the base A. D is the body of the stove, in which is formed the fire-chamber. E are one, two, three, or more pipes, the lower ends of which are connected with the top of the body D, and open directly into the fire-chamber. The upper ends of the pipes E are connected with the bottom of the receiver F, and open directly into the said receiver. G are one, two, three, or more pipes, placed upon the opposite side of the stove from the pipes E, and their upper ends are connected with and open into the receiver F. The lower ends of the pipes G are connected with and open into a receptacle, H, formed in one side of the upper part of the fire-chamber D, which receptacle is thus exposed to the direct heat of the fire so as to burn up a part of the smoke as it passes through said receptacle. In the inner part of the receptacle H, directly in the center of the stove, is formed a short tubular chamber, I, the sides of which are slotted vertically to allow the smoke and other products of combustion to pass into said chamber I, and thence into the central pipe

J, the lower end of which communicates with the upper end of the tubular chamber I, and the upper end of which leads up through the receiver F, and communicates with the smoke-pipe K leading to the chimney. In the bottom of the receptacle H is formed a hole, *h*, leading into the fire-chamber D, and which is provided with a sliding damper, L, the handle M of which passes out through the side of the stove, as shown in Figs. 1 and 3. In the sides of the part of the pipe J that passes through the receiver F, and near the bottom of said receiver, are formed holes or openings *j*, which are closed by a tubular damper, N, which fits into and slides in the interior of said pipe J, and to which is pivoted the lower end of a rod, O. The rod O passes up through the interior of the pipes J K, and its upper end is pivoted to the inner end of the lever P, which passes through a slot in the side of the pipe K, and which is pivoted to the said pipe. The outer part of the lever P has a ball or weight, Q, placed upon it, which weight Q, when pushed outward to the outer end of the lever P, holds the damper N raised or opened, and when pushed inward toward the pipe K holds the damper N down or closed.

By this construction, when the fire is first lighted, or when a direct draft is required for other cause, the dampers L and N are opened, which allows the smoke and other products of combustion to pass up through all the pipes E G J and into the chimney. When the dampers L N are closed the smoke and other products of combustion pass up through the pipes E, across the receiver F, down through the pipes G, into the receptacle H; thence into the chamber I, and up through the central pipe J to the chimney. By this arrangement of the pipes and chambers the heat will be to a great extent withdrawn from the smoke before it passes to the chimney. The pipes E G J are incased with finely-perforated pipes R, which allow the heated air to pass through, and which, being slightly larger than the pipes E G J, will remain black.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The arrangement of the pipes E G J, the receiver F, and receptacle H, in connection with each other and with the fire-chamber D and smoke-pipe K, substantially as herein shown and described, and for the purpose set forth.

2. The arrangement of the dampers L N, in connection with the fire-chamber D, recep-

tacle H, pipes E G J, and receiver F, substantially as herein shown and described, and for the purposes set forth.

THOMAS SCANTLIN.

Witnesses:

W. I. HARVEY,
CHAS. STEWART.