

No. 649,833.

Patented May 15, 1900.

F. P. GILLESPIE.
GAS HEATING STOVE.

(Application filed Mar. 16, 1900.)

(No Model.)

2 Sheets—Sheet 2.

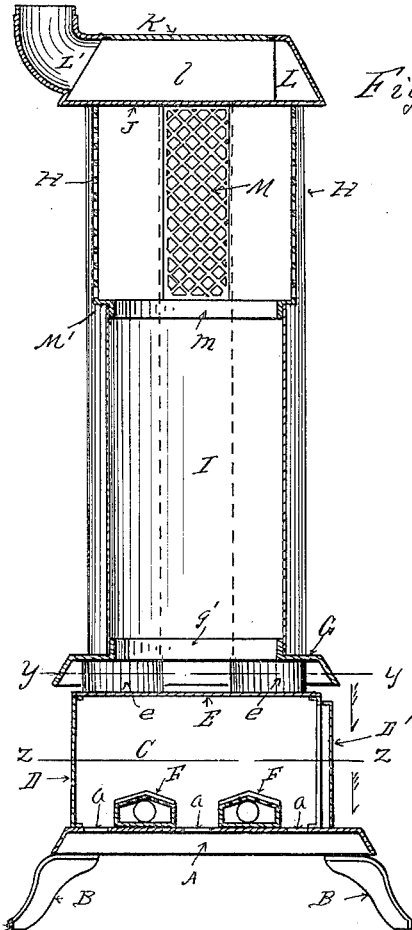


Fig. 3.

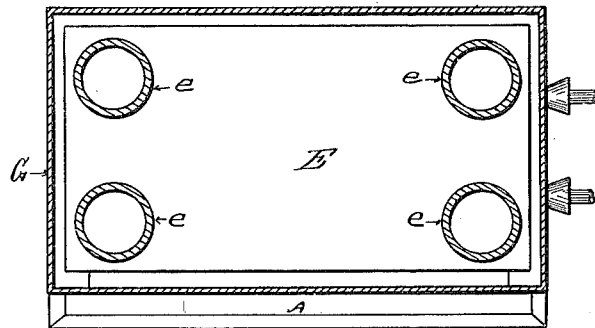


Fig. 4.

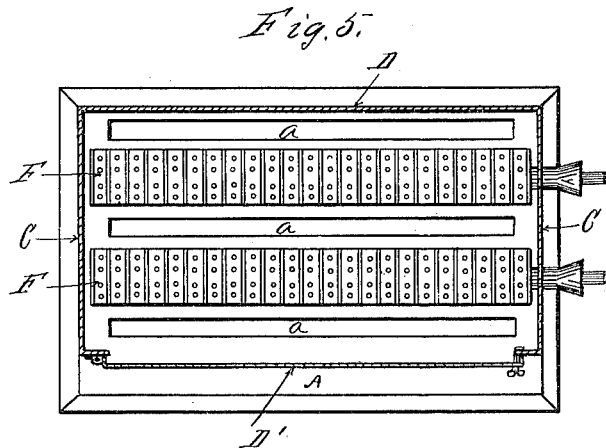


Fig. 5.

WITNESSES

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UNITED STATES PATENT OFFICE.

FRANK P. GILLESPIE, OF ERIE, PENNSYLVANIA, ASSIGNOR OF ONE-HALF
TO JOSEPH I. TOWN, OF SAME PLACE.

GAS HEATING-STOVE.

SPECIFICATION forming part of Letters Patent No. 649,833, dated May 15, 1900.

Application filed March 16, 1900. Serial No. 8,959. (No model.)

To all whom it may concern:

Be it known that I, FRANK P. GILLESPIE, a citizen of the United States, residing at Erie, in the county of Erie and State of Pennsylvania, have invented certain new and useful Improvements in Gas Heating-Stoves; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, forming part of this specification.

My invention relates to improvements in gas heating-stoves; and it consists, substantially, in the features thereof hereinafter set forth and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a vertical sectional view of my improved gas heating-stove on the line *ww* in Fig. 2 looking in the direction of the arrow. Fig. 2 is a top or plan view of the same. Fig. 3 is a vertical section of the stove on the line *xx* in Fig. 1 looking in the direction of the arrow. Fig. 4 is a transverse section of the same on the line *yy* looking in the direction of the arrow. Fig. 5 is a transverse section on the line *zz* looking in the direction of the arrow.

The stove thus illustrated is designed for burning gas and is provided with both a hot-air flue and flues for carrying off the products of combustion. Many of the stoves designed for burning gas-fuel have no provision for carrying off the products of combustion, while others so provided apply the heat of the gas-fuel burned to the air being heated unevenly, so that the best results are not realized therefrom. Again, in the usual type of stoves of this character flues are made at the ends or back of the fire-box of the stove, which are liable to burn out and are difficult to replace. To overcome these difficulties, I have so constructed my stove as to entirely do away with air-flues at the back or ends of the fire-box and make the top of the fire-box with one plate above the other, leaving an opening all around between the edges of the plates, through which air passes into the space between the plates and up through a central

flue, while smoke-flues pass down at the corners through the lower plate, forming the immediate top of the fire-box, and up into a double stove-top and out through an ordinary pipe-thimble at the back of the stove-top.

In the drawings, A is the stove-base; B, the legs; C C, the ends, and D the back of the fire-box, and D' a door forming the front of the fire-box. The top of the fire-box is formed of a horizontal plate E. In the bottom of the fire-box I make air-openings, preferably in the form of longitudinal slots *aaa*, and between these slots I place gas-burners F F. (See Figs. 3 and 5.) In each corner of the top E of the fire-box I make openings provided with upwardly-extending thimbles *e*, (see Fig. 4,) which are provided with shoulders *e'* thereon at some distance above the plate E, upon which shoulders *e'* a second plate G, having openings *g* at the corners thereof adapted to fit over said thimbles, rests, the upper ends *e''* of the thimbles *e* projecting above the plate G far enough to receive the lower ends of upright pipes or flues H H H H, and in the center of the plate G there is an opening provided with an upwardly-projecting thimble *g'*, adapted to receive the lower end of the large central air-flue I. Upon the upper ends of the pipes or flues H there is a plate J, forming the lower part of the stove-top, provided with thimbles *j*, adapted to enter the upper ends of the flues or pipes H. Above the plate J there is a plate K, which forms the extreme top of the stove. This plate is secured to the plate J in the usual manner, so as to leave a chamber L between said plates J and K, into which the products of combustion from the pipes or flues H discharge. In this chamber L there are two vertical deflecting-plates *ll*. (Partially shown in Fig. 1 and shown in dotted lines in Fig. 2.)

In the back of the central part of the stove-top there is an ordinary pipe-thimble L', which opens into the chamber L, so as to carry off the products of combustion. In the center of the stove-top K there is a removable griddle K', (see Fig. 2,) and it will be observed that the arrangement of the deflectors *ll* is such that all of the heat from the flues H must pass directly across under the griddle

K' to the pipe-thimble L', which is very desirable in the use of the griddle-opening for heating kettles or for other purposes.

Just under the lower plate J of the stove-top I place an open-work screen M, having a bottom M', which is centrally provided with an opening which has a downwardly-projecting thimble m, adapted to enter the top of the central air-flue I, so that the heated air passing up through the flue I passes up and out through the openings in the screen M into the room being heated. The shape of the screen M is not material; but I prefer the form shown by the dotted lines in Fig. 2, having open-work at the ends and in the front and back thereof between the corner pipes or flues H.

Having thus described my invention so as to enable others to construct and use the same, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. The combination in a gas heating-stove, of a fire-box, gas-fuel burners in said fire-box, vertical flues extending upward from the corners of said fire-box, a hollow stove-top connecting with the top of said flues, deflectors in the hollow stove-top extending from the rear nearly to the front thereof, and a pipe-thimble on the central part of the back of the stove-top, substantially as and for the purpose set forth.

2. The combination in a gas heating-stove, of a fire-box, gas-fuel burners in said fire-box, vertical flues extending upward from the cor-

ners of said fire-box, a horizontal plate somewhat above the top of the fire-box, through which the corner-flues pass down into the corners of the fire-box, and having an opening extending entirely around it so as to allow air to pass in under it over the top of the fire-box, a central opening in said plate with a central air-flue extending upward therefrom, a hollow stove-top resting on the tops of the corner-flues, and a screened inclosure under the stove-top resting upon and connecting with the upper end of the central air-flue, substantially as and for the purpose set forth.

3. The combination in a gas heating-stove, of a fire-box mounted upon a suitable base, gas-burners in the bottom of the fire-box, vertical flues extending upward from the corners of the fire-box, a horizontal plate above the top of the fire-box supported by collars on the upright flues, a central air-flue extending upward from said horizontal plate, a hollow stove-top resting upon the tops of the corner-flues, deflectors in said stove-top, and a grated inclosure under the stove-top, resting upon and communicating with the top of the central air-flue, substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

FRANK P. GILLESPIE.

Witnesses:

FRED EINFELDT,
H. J. CURTZE.