

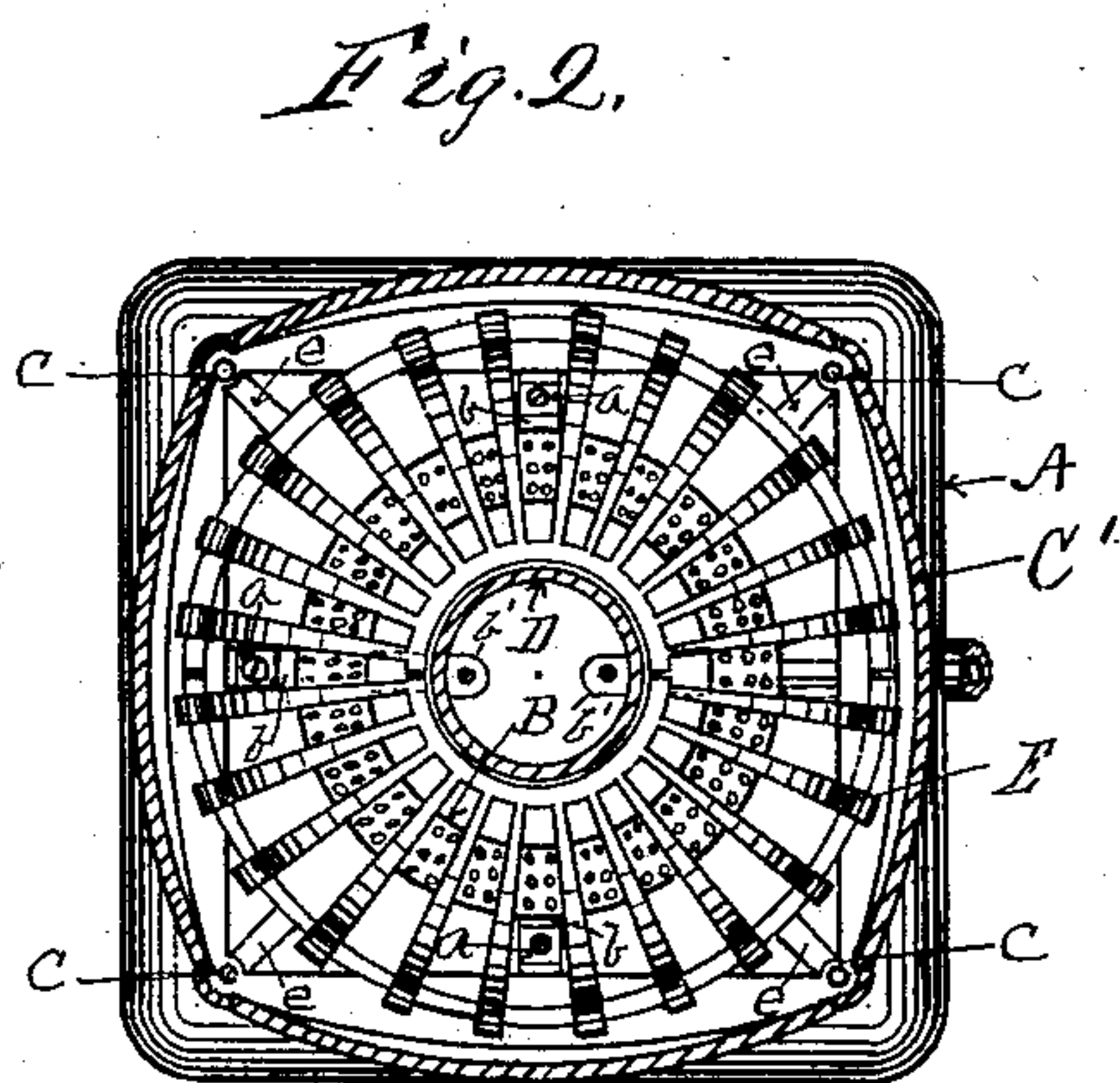
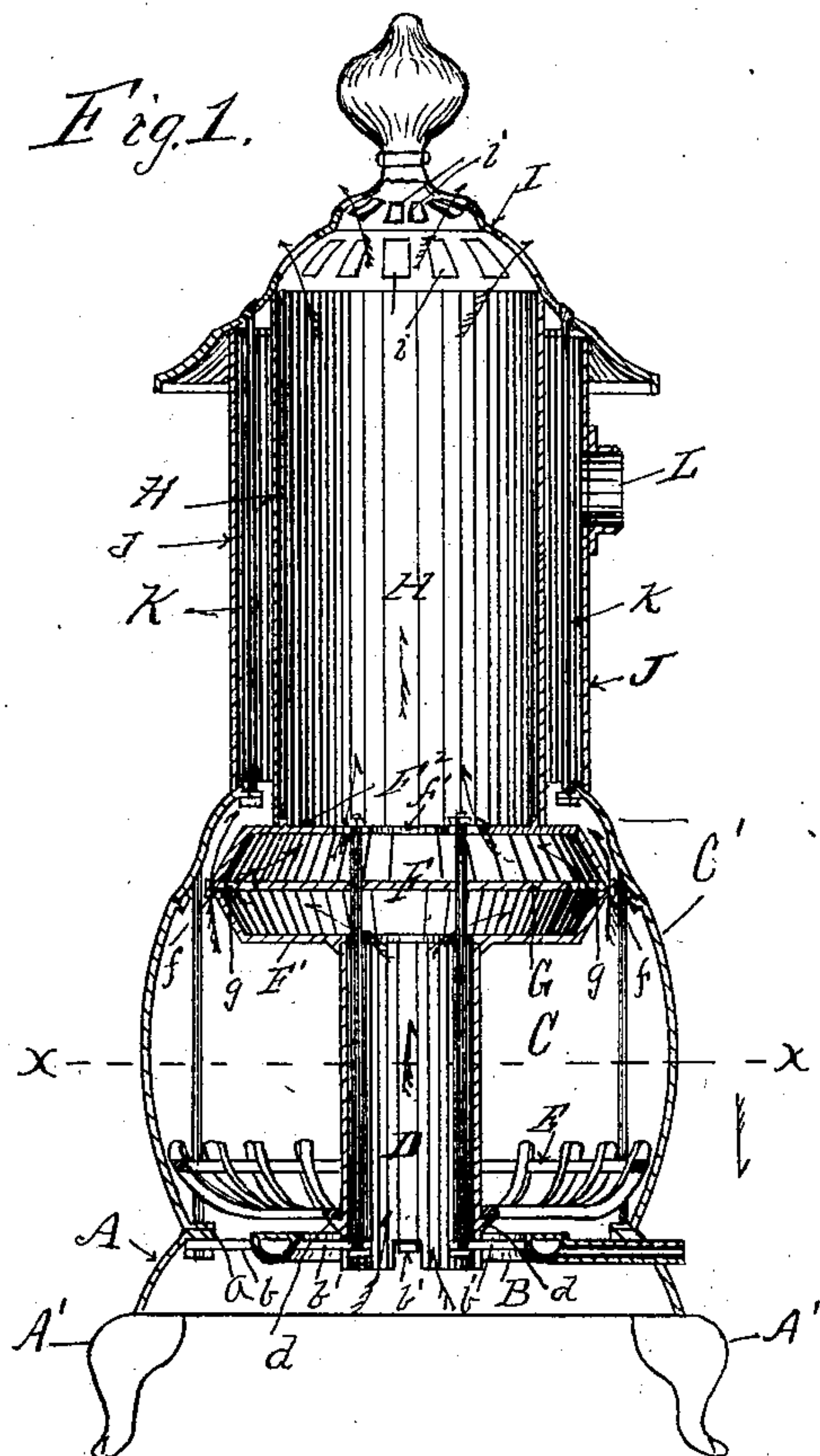
No. 710,053.

Patented Sept. 30, 1902.

M. GRISWOLD, JR.
GAS STOVE.

(Application filed July 23, 1901.)

(No Model.)



Witnesses.
H. M. Surgeon
Charles A. Munters.

Inventor
Matthew Griswold Jr.
By *H. H. Hargrove*
att'y.

UNITED STATES PATENT OFFICE.

MATTHEW GRISWOLD, JR., OF ERIE, PENNSYLVANIA.

GAS-STOVE.

SPECIFICATION forming part of Letters Patent No. 710,053, dated September 30, 1902.

Application filed July 23, 1901. Serial No. 69,345. (No model.)

To all whom it may concern:

Be it known that I, MATTHEW GRISWOLD, Jr., 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-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-stoves; and it consists substantially in making the stove with a central air-flue which extends up through the fire-box of the stove and opens into a heating-chamber provided with a baffle-plate or deflector and a central air-flue above the heating-chamber surrounded by a smoke-flue. These and other features of my invention are hereinafter set forth, and illustrated in the accompanying drawings, in which—

Figure 1 shows a vertical central section of my improved gas-stove. Fig. 2 shows a transverse section of the same on the line xx in Fig. 1.

In the drawings thus illustrating my invention, A is the base of the stove, supported upon legs A' in the usual manner. The central part of the base A is cut away, and to inwardly-projecting lugs a I secure a circular gas-burner B, provided with peripheral lugs b , adapted to be bolted to the lugs a on the base A, and also with inwardly-projecting lugs or arms b' . Upon the periphery of the base A I place the fire-box C, and to the lugs b' on the burner B, I secure the lower end of an air-flue D, and in the lower part of the fire-box C, I place a basket-grate E, which is supported by means of lugs e , extending to and contacting with the corners c of the fire-box shell C', and lugs d on the lower portion of the air-flue D. Upon the top of the air-flue D, I secure a heating-chamber F, the lower half F' thereof resting upon the top of the air-flue D and the upper half thereof, F², resting in a groove f in the periphery of the lower

half F' of the heating-chamber F, and between the two halves of the heating-chamber F there is secured a baffle-plate G by means of peripheral lugs g thereon entering slots between the two halves F' and F² of the heating-chamber F, so that with the exception of the space occupied by the lugs g thereon there is a continuous peripheral opening around the edge of the baffle-plate G for the passage of air upward from the lower part of the heating-chamber. It will also be observed that by means of this construction the heating-chamber is entirely supported upon the air-flue D and a clear space left entirely around it between its periphery and the inside of the shell C' of the fire-box C for the escape of the products of combustion from the fire-box C. Upon the top F² of the heating-chamber F, I place an air-flue H, which connects with the heating-chamber by means of a central opening f' through the top F² of the heating-chamber. This air-flue H extends up to the stove-top I and discharges the heated air therefrom through openings i therein. On the top of the fire-box C', I place a smoke-flue J, which extends up to the stove-top I and entirely surrounds the air-flue H, so as to leave a narrow annular space K between said outer flue J and the inner air-flue H, through which the smoke and products of combustion pass up around the heating-chamber F and pass to a pipe-thimble L on one side of the upper part of the flue J. In this construction it will be observed that I utilize the heat both to heat air passing up through the central flue, but also utilize it for direct radiation to the greatest extent possible.

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—

In a gas-stove, the combination of a base, a gas-burner secured to lugs therein, inwardly-extending arms on said gas-burner, a fire-box resting upon said base, a central air-flue secured at its lower end to the inwardly-projecting arms of the gas-burner, a heating-chamber resting upon and supported by said

flue so as to leave an annular space between
it and the shell of the fire-box, a baffle-plate
in said heating-chamber having an annular
opening around its periphery, an air-flue on
5 the top of said heating-chamber discharging
through openings in the stove-top, and a
smoke-flue resting upon the top of the shell
of the fire-box and surrounding the air-flue

above the heating-chamber, substantially as
set forth.

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

MATTHEW GRISWOLD, JR.

Witnesses:

W. P. GIFFORD,

H. M. STURGEON.