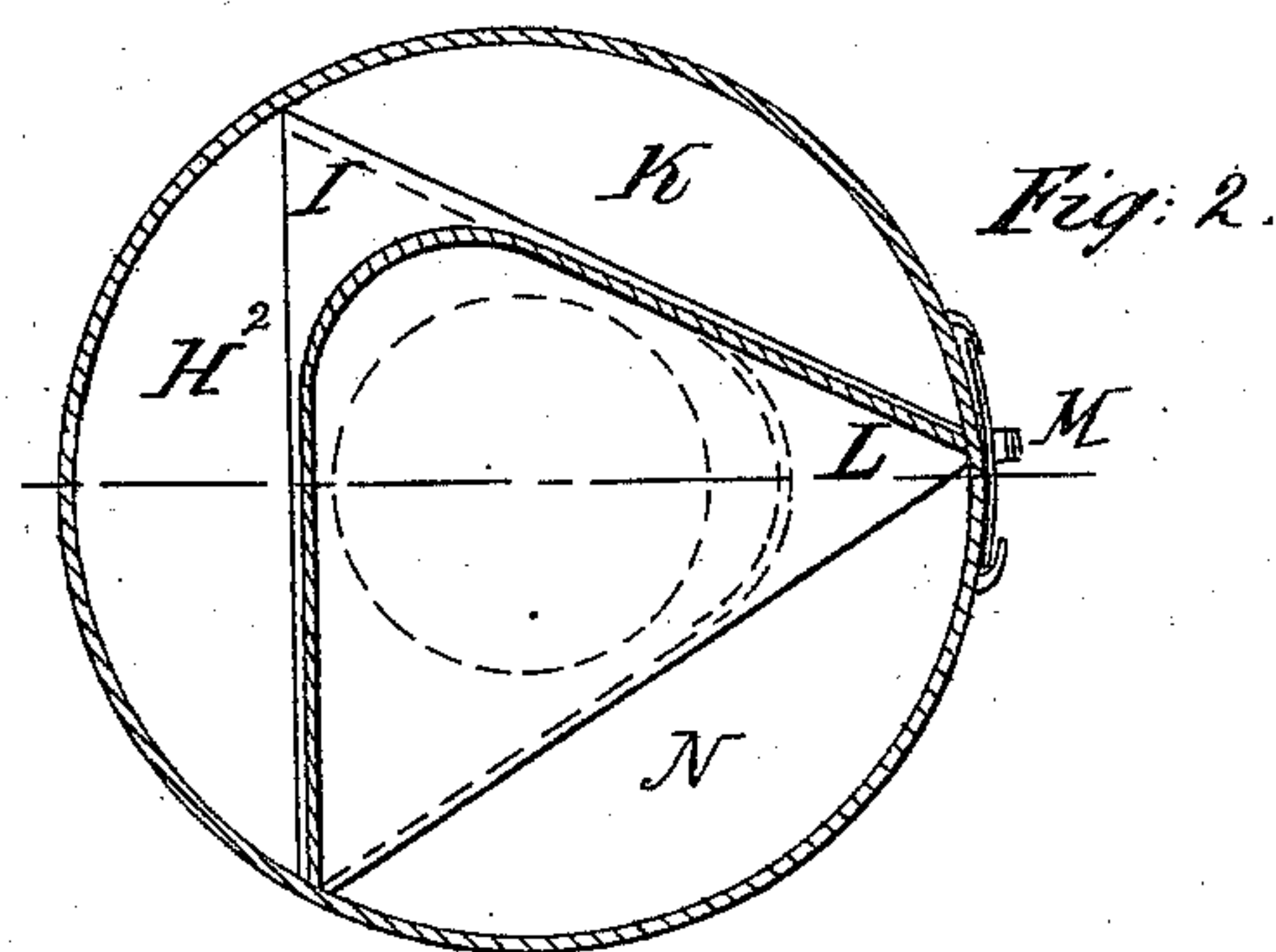
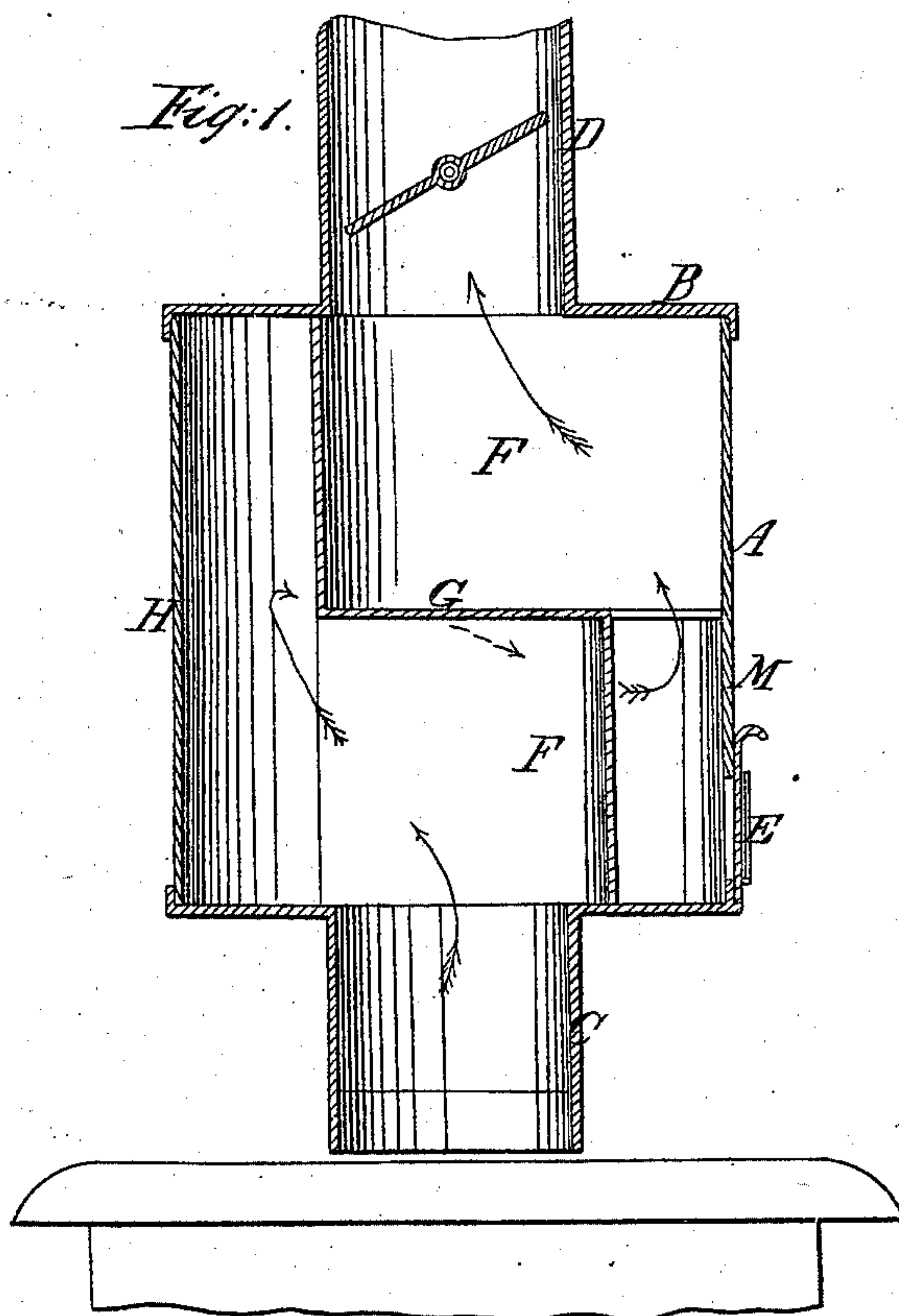


G. S. WALKER.  
Heating Drum.

No. 81,714.

Patented Sept. 1, 1868.



Witnesses:  
Wm A Morgan  
G. C. Cotton

Inventor  
G. S. Walker  
per Munnif  
Attorneys

# United States Patent Office.

GEORGE S. WALKER, OF ERIE, PENNSYLVANIA.

*Letters Patent No. 81,714, dated September 1, 1868.*

## IMPROVEMENT IN STOVE-PIPE DRUMS.

*The Schedule referred to in these Letters Patent and making part of the same.*

TO ALL WHOM IT MAY CONCERN:

Be it known that I, GEORGE S. WALKER, of Erie, in the county of Erie, and State of Pennsylvania, have invented a new and improved Stove-Drum; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

The object of this invention is to provide an improved radiating stove-drum.

It consists of a hollow radiating cylinder or drum, made of sheet metal, and suitably arranged to be applied to a stove in any desired manner, and having pipe-connections, for receiving and discharging the product of combustion, and provided with an internal apparatus, for conveying the said product around and exposing it to the shell of the drum, in a manner to extract the heat therefrom, as will be more fully described on reference to the accompanying drawings, wherein—

Figure 1 represents a central vertical elevation of my improved drum, and

Figure 2 represents a top view, with the cover removed.

Similar letters of reference indicate corresponding parts.

A represents the drum, which is provided with a cover, B, and pipe-connections C and D, and with a door, E.

F and F' represent vertical triangular flues, open at the base, and rounded at the apex; and

G represents a horizontal triangular dividing-plate arranged between them.

The flue F is arranged, as shown in fig 1, to receive the product of combustion, and deflect it towards the side H of the drum, causing it to pass up through the space H<sup>2</sup> over the point I of the triangular plate G, where it comes in contact with the outside of the flue F', which shuts off the direct passage to the pipe D, and compels it to pass down through the space K, and under the point L of the dividing-plate, in contact with the outside of the flue F, which forces it against the side M of the drum, and into the space N, through which it passes into the flue F', and thence into the exhaust-pipe D, having passed entirely around the drum, and been exposed to all parts of the surface thereof, whereby the radiation of the heat is very greatly facilitated.

The flues and dividing-plate may be made separately from the drum, and be set in at the top before the cover is secured.

I claim as new, and desire to secure by Letters Patent—

The arrangement, within the drum H, and with relation to each other, of the curved fire-plates F F', to direct the products of combustion in the described manner herein set forth and shown.

GEO. S. WALKER.

Witnesses:

J. J. HOGAN,

A. W. WALKER.