

W. H. GANDEY.

Coal Stove.

No. 54,526.

Patented May 8, 1866.

Fig. 1.

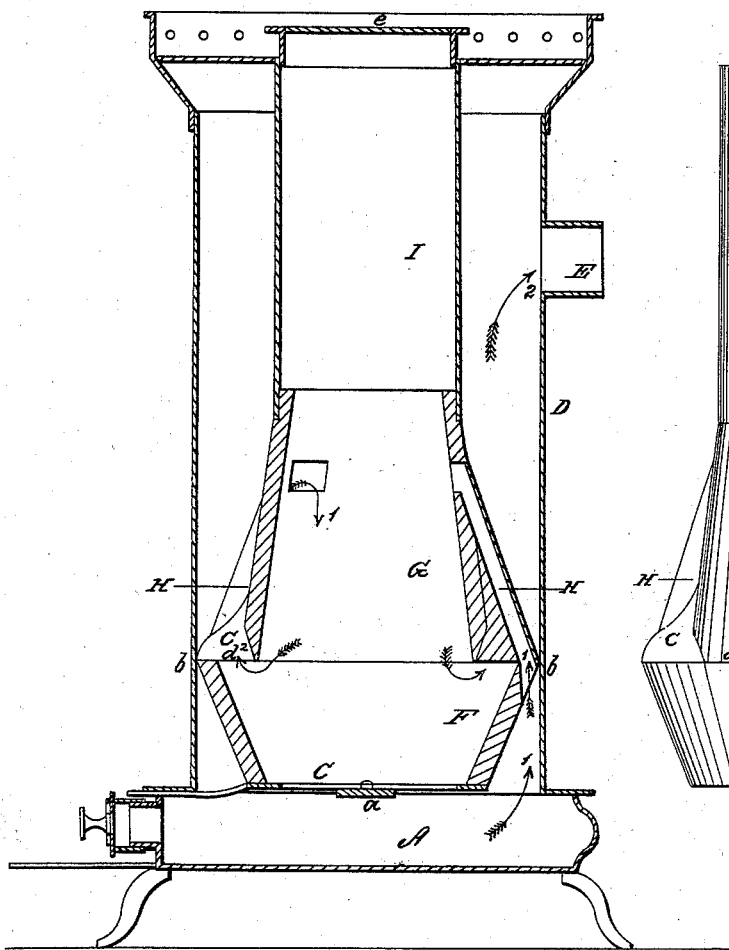
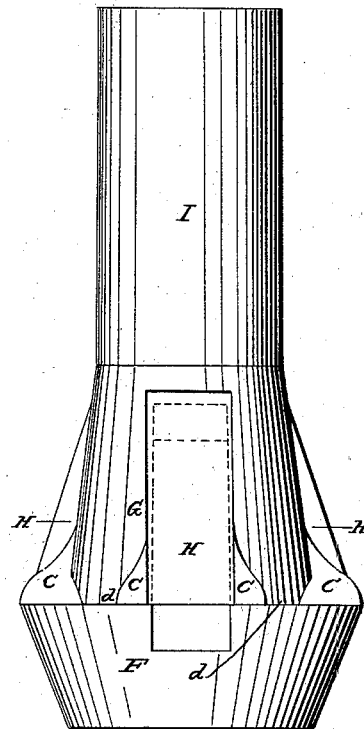


Fig. 2.



Witnesses:

J. H. Blount  
W. H. Gandy

Inventor:

W. H. Gandy  
Per J. H. Blount  
Att'y.

# UNITED STATES PATENT OFFICE.

WILLIAM H. GANDEY, OF LAMBERTVILLE, NEW JERSEY.

## IMPROVEMENT IN COAL-STOVES.

Specification forming part of Letters Patent No. 54,526, dated May 8, 1866.

*To all whom it may concern:*

Be it known that I, WILLIAM H. GANDEY, of Lambertville, in the county of Hunterdon and State of New Jersey, have invented a new and Improved Smoke-Consuming Stove; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a vertical central section of my invention; Fig. 2, a detached external view or elevation of the inner cylinder and fire-pot pertaining to the same.

Similar letters of reference indicate like parts.

The object of this invention is to obtain a stove of simple construction, which will consume the smoke and also radiate a large amount of heat from a given quantity of coal, the invention being applicable to all kinds of stoves.

A represents the base of the stove, which is hollow and contains an ash-pit, B, and C is the grate, which may be constructed in any proper manner and secured to a bar, *a*, in the upper part of the base.

D is the external cylinder of the stove, which may be constructed of sheet-iron, and rests upon the base A, said cylinder being provided with a top or cap, and having the smoke-pipe E communicating with its upper part, as shown clearly in Fig. 1.

F represents the fire-pot, which may be of inverted conical form, and is directly over the fire-grate C. The upper edge of this fire-pot is in contact with the inner surface of the cylinder D, and forms a partition in said cylinder, as shown at *b*.

G represents a slightly conical chamber, the lower end of which is less in diameter than the upper end of the fire-pot F. This chamber G is also of cast-iron and cast with the fire-pot F, the former being connected with the latter

by lugs *c*, between which there are draft-passages H, three, more or less, the lower ends of which communicate with the cylinder D, just below the upper edge of the fire-pot, and the upper ends communicating with the upper part of the chamber G. The spaces *d*, between the passages H, are the draft-openings from the fire-pot.

I is a cylinder fitted on the upper end of the chamber G, and extending up through the top of cylinder D, and having a cover, *e*, fitted in it.

The fire is made by placing kindling material in the fire-pot F, and filling the chamber G with coal or other fuel used, up to the orifices of the passages H, the fire being supplied with fuel from time to time, as required, through the top of cylinder I. The fuel in G will be ignited in consequence of the draft passing down through it, as indicated by the arrows 1, said draft passing from the base A, up through the passages H into G, causing the smoke to pass through a large mass of live or heated coals and to be entirely consumed. The other products of combustion pass from the fire-pot through the openings or spaces *d* into the cylinder D, and up through the latter into smoke-pipe E, as indicated by arrows 2.

Thus by this simple arrangement a very efficient smoke-consuming stove is obtained, and at the same time a good heat-radiator. Wood and bituminous or anthracite coal may be used for fuel.

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

The fire-pot F and chamber G, in combination with the draft-passages H, draft-spaces *d*, external cylinder, D, and base A, all arranged substantially in the manner and for the purpose herein set forth.

Witnesses: WM. H. GANDEY.  
JAS. C. WEEDEN,  
JACOB SERVIS.