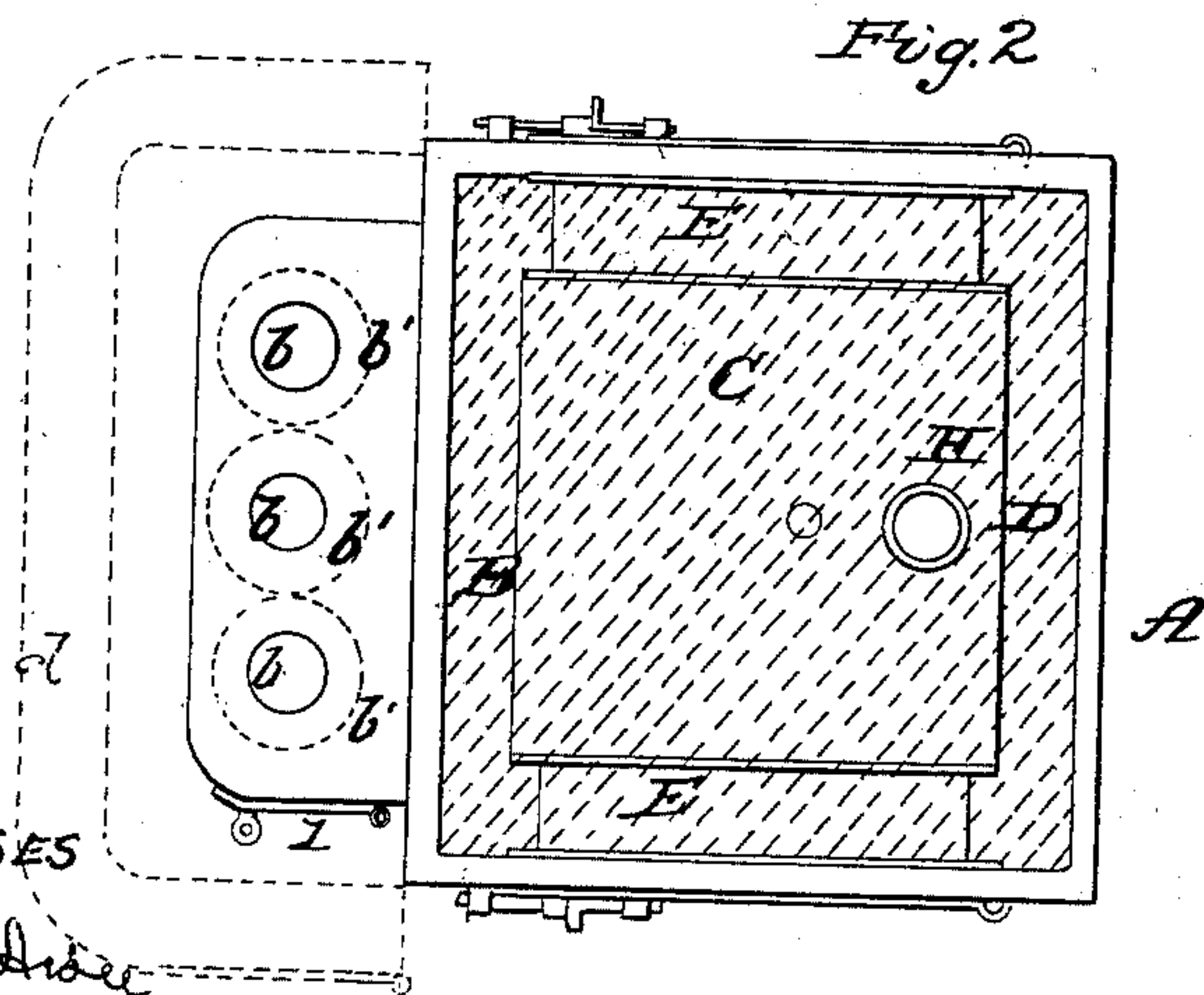
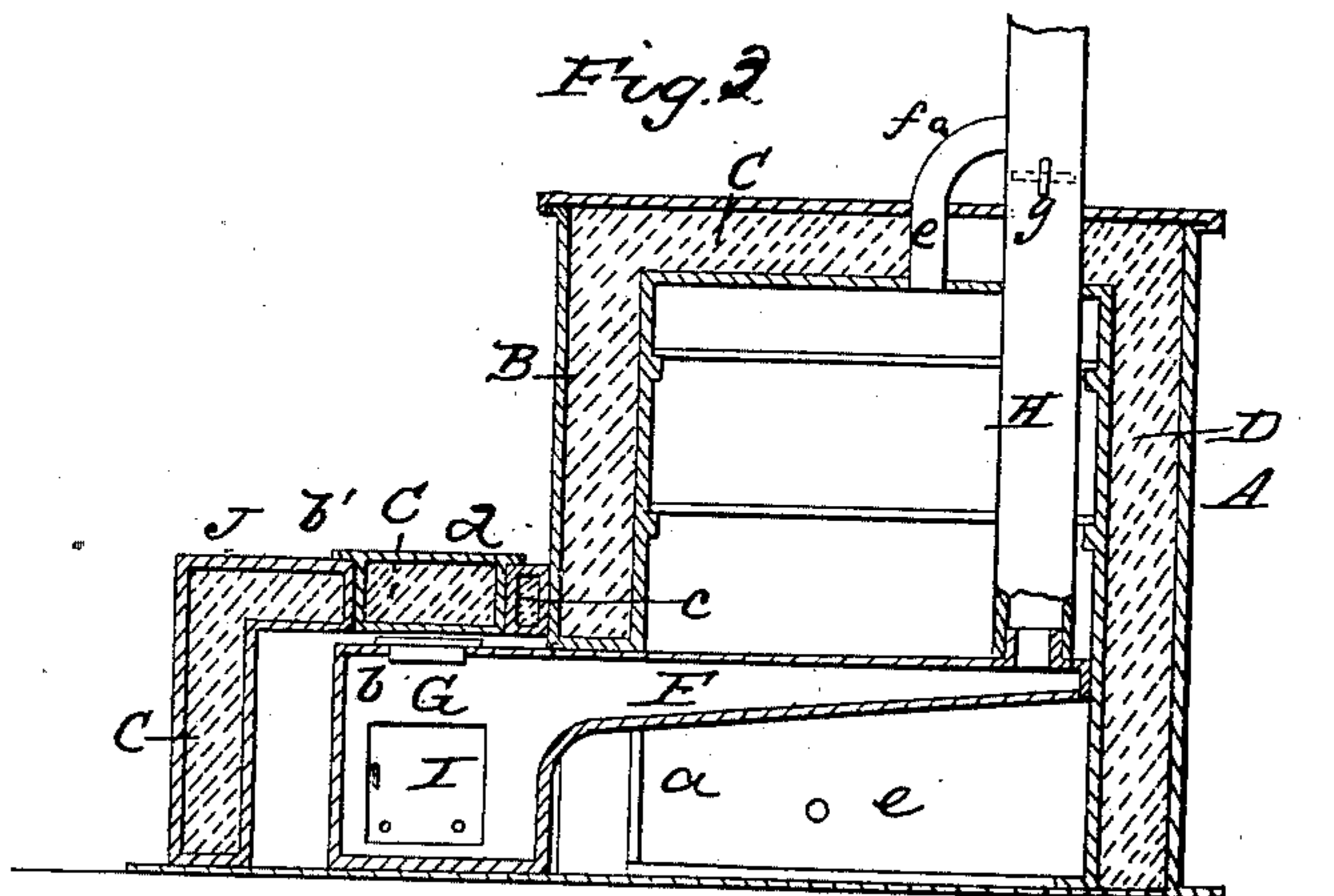
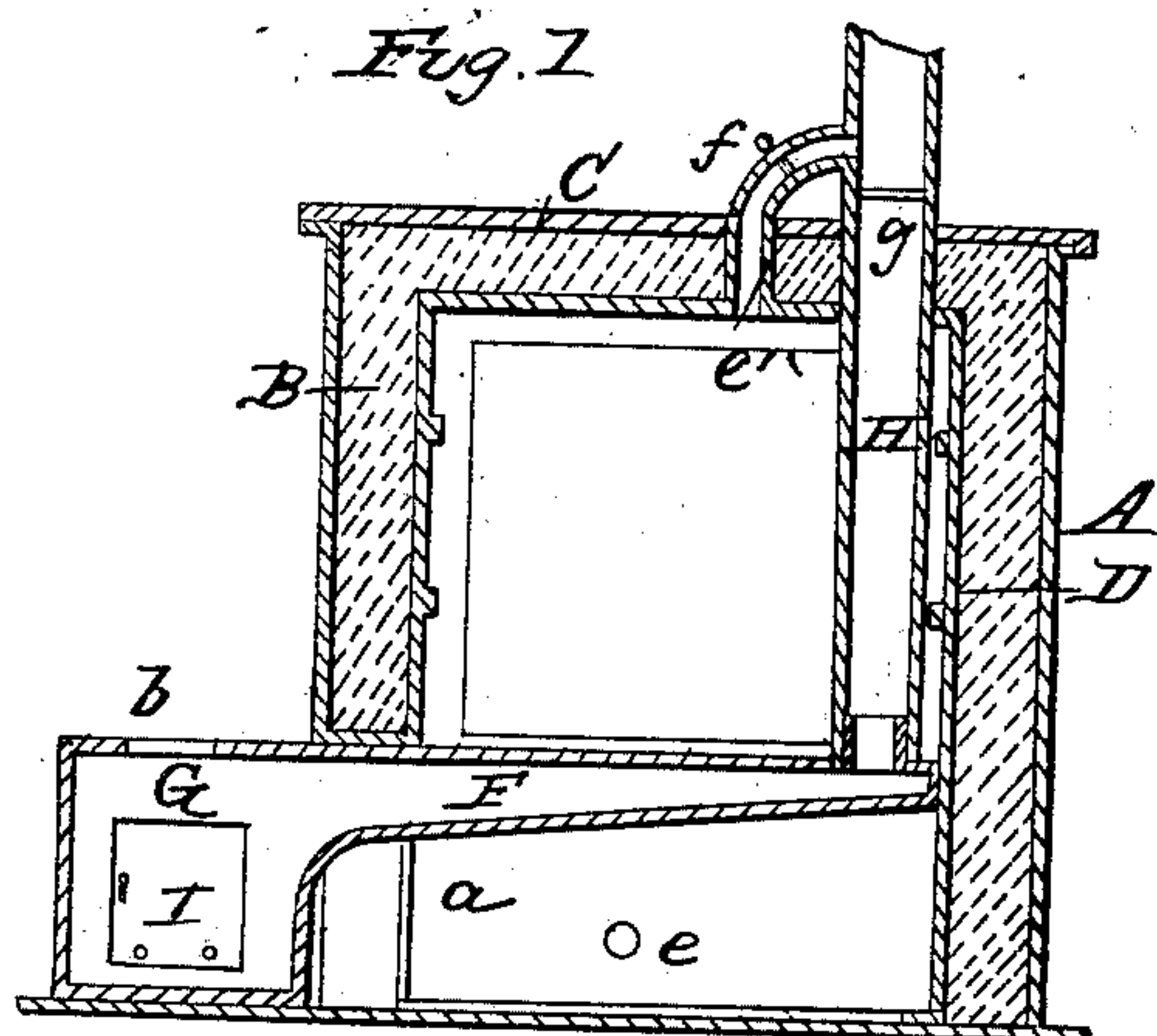


T. J. WHITEHEAD.

Stove.

No. 23,418.

Patented March 29, 1859.



WITNESSES  
B. Burke  
H. F. Young

INVENTOR  
T. J. Whitehead



# UNITED STATES PATENT OFFICE.

T. J. WHITEHEAD, OF SOUTH PARIS, MAINE.

## STOVE.

Specification of Letters Patent No. 23,418, dated March 29, 1859.

*To all whom it may concern:*

Be it known that I, T. J. WHITEHEAD, of South Paris, in the county of Oxford and State of Maine, have invented a new and  
5 useful Improvement in Stoves; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in  
10 which—

Figure 1 is a vertical longitudinal section of a stove adapted for using my improvement advantageously during winter weather. Fig. 2, is a plan or top view of a stove  
15 adapted for using my improvement during the warm weather. Fig. 3, is a vertical longitudinal section of the same.

Similar letters of reference, in each of the several figures, indicate corresponding parts.

20 My invention consists in the combination with the fire chamber, which has conveniences on top for receiving boilers, kettles, pans &c. and an oven having hollow walls, filled in with some non-conducting material,  
25 of a removable fire chamber casing which has hollow walls filled in with some non-conducting material and is in shape, externally, nearly the counterpart of the fire chamber and serves for incasing the whole  
30 of the exposed portion of the fire chamber, and at the same time allows access to the holes in the top of the fire chamber and to the fuel door thereof, whereby in warm weather the operations of baking, boiling,  
35 &c., can be carried on with great economy of fuel, in a room, without the necessity of removing the fire chamber casing, or of any inconvenience from the radiation of heat, being experienced, either from the oven or  
40 fire chamber; and whereby in cold weather the room in which the oven is located can be heated to the desired degree and the necessary boiling or other similar cooking operations carried on without any considerable  
45 heat being radiated by the cooking oven.

To enable others, skilled in the art, to make and use my invention, I will proceed to describe its construction and operation.

50 A, represents an oven of ordinary construction, either square or round, constructed so as to receive a suitable non-conducting material within its hollow walls as shown at B, C, D, E, F. The non-conducting materials which I prefer to employ are of light  
55 colored oxids, or earths, to wit; oxid of cal-

cium, of alumina, potassium, silex, &c.; these materials being used separately or by mixing two or more together so that the lighter colored material shall predominate. In the front of the oven, an opening *a*, is  
60 formed and through this opening, the rear extension or flue F, of a fire chamber or stove G, is passed as shown. The extension F, connects with a vertical pipe H, passed down through the top of the oven, as shown. 65

The body or main portion of the fire chamber stands out in the room in front of the oven, and is of the form shown in the drawing or in any other more suitable shape, being furnished at one end with a  
70 fuel and draft door I, and with holes *b, b*, in its top for the reception of pots, kettles, griddles, &c., as shown in Fig. 1, said holes being furnished with covers when cooking is not being performed. The arrangement  
75 thus described answers for winter use. Now to render this arrangement more useful and agreeable in the summer season, I arrange around the fire chamber as shown in black in Fig. 3, and red in Fig. 2, a  
80 removable casing J, with double walls, having a suitable or light colored nonconducting material *c*, placed between them. This casing has holes *b', b'*, in its top, similar to those *b, b*, with the exception of their  
85 being enlarged so as to allow the pots, kettles, &c., to rest upon the top of the fire box over the openings in the same, as shown in Fig. 3. The openings in this casing are furnished with non-conducting covers *d*. 90

In practice it may be found advantageous to white wash the interior of the oven with a solution of alum, lime and glue so as to more effectually prevent the radiation of the heat back into the oven, this, however,  
95 may not be essential as I have found by experiment that the outer walls of the oven remain almost perfectly cold during a long period while baking is being rapidly performed in the inside of the oven, by simply  
100 employing the light colored non-conducting materials herein named between the walls, these materials by a well known principle preventing a rapid radiation of the heat.

In practicing with my invention, it is  
105 found that a great economy of heat and consequently fuel is effected in the winter season and by attaching a conducting or radiating drum or pipe above the oven the escape or waste heat can be thrown into  
110



the room above the oven or conducted into apartments above and thus while the full effect of the fire is employed for baking and cooking purposes, the waste heat is  
5 made useful for heating the kitchen or the upper part of the house.

In the drawing, I have represented the oven as being provided with draft flues *e*, *e'*, and dampers *f*, *g*, for controlling and  
10 regulating the heat, but as these devices are common to all stoves, no particular description of them is deemed necessary.

The novelty and gist of my invention lies in the removable fire chamber casing used  
15 in combination with an oven and fire chamber in the manner herein described and shown, so that cooking can be performed over the fire chamber while the casing is applied. Therefore

What I claim as my invention and desire 20 to secure by Letters Patent, is—

The combination with the fire chamber described, and with an oven having hollow walls filled in with nonconducting material, of a removable fire chamber casing 25 which has hollow walls filled in with a nonconducting material, and is in shape, externally, nearly the counterpart of the fire chamber, and serves for incasing the whole of the exposed portion of the fire chamber, 30 and at the same time allows access to the holes in the top of the fire chamber and to the fuel door thereof, substantially as and for the purposes set forth.

T. J. WHITEHEAD.

Witnesses:

G. YORKE AT LEE,  
H. H. YOUNG.