

H. R. ROBBINS.

2 Sheets—Sheet 1.

Stove.

No. 23,396.

Patented March 29, 1859.

Fig. 1.

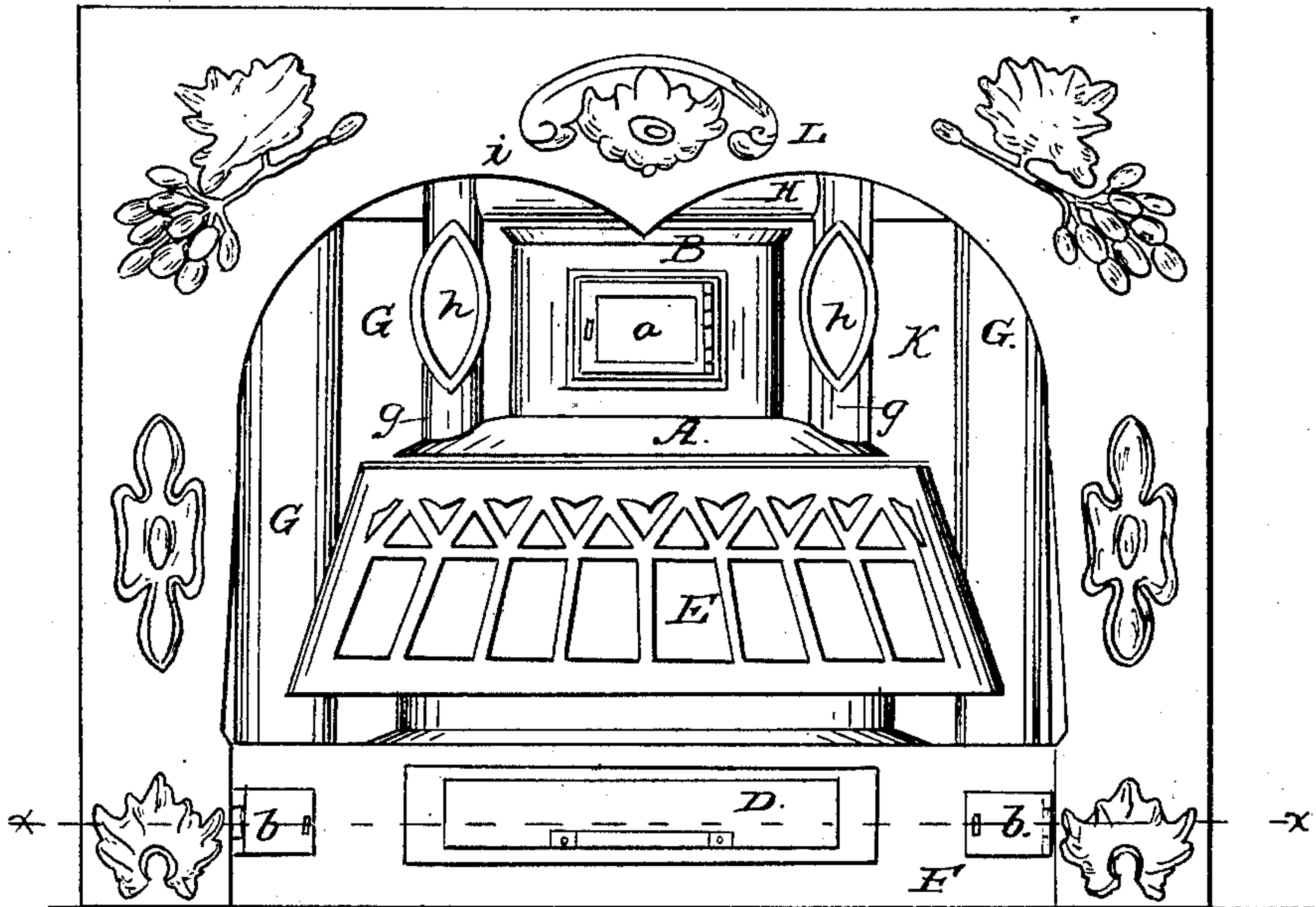
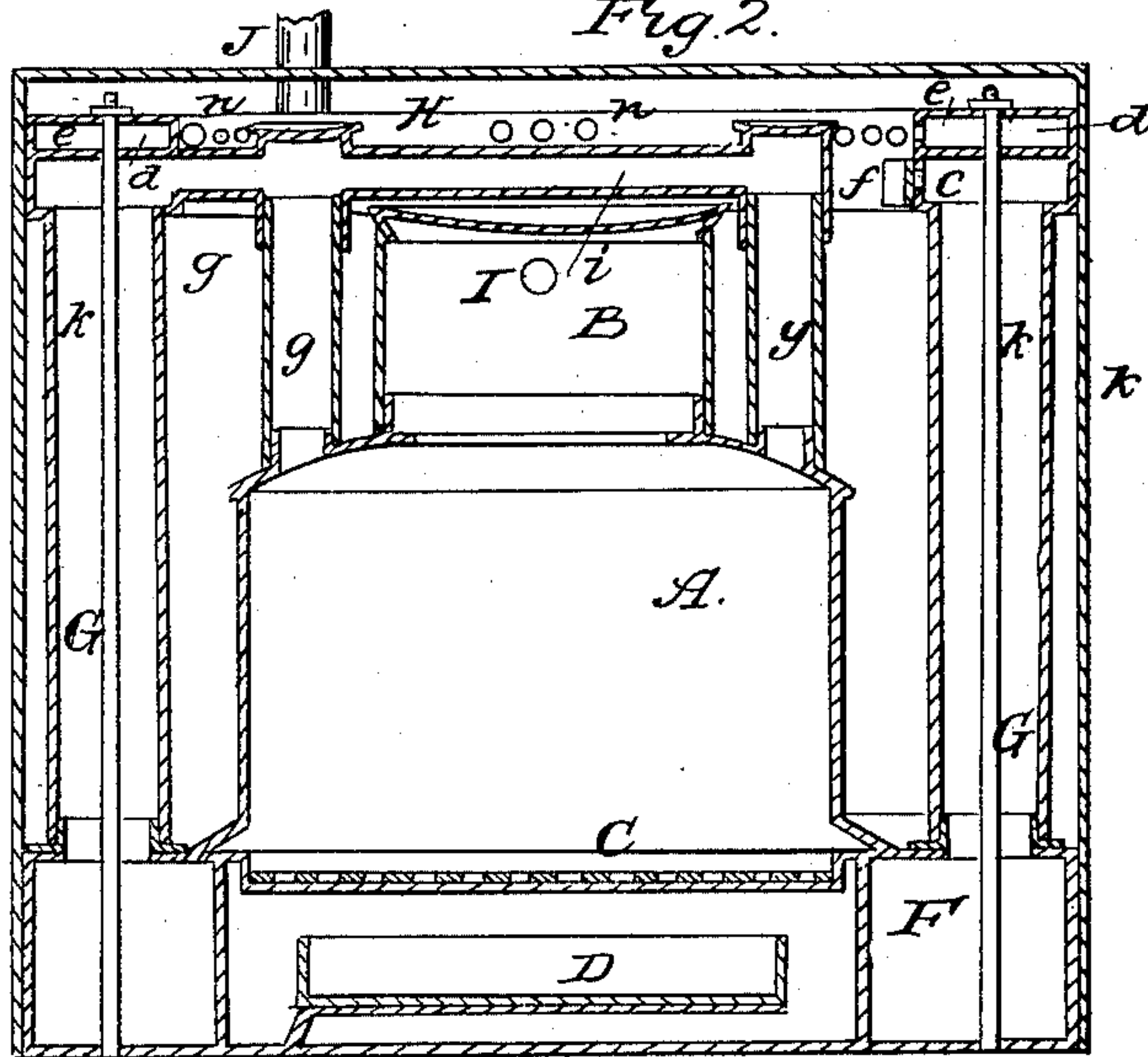


Fig. 2.



WITNESSES  
Jas. H. Carter  
Wm. Keeler

INVENTOR  
H. R. Robbins

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Fig. 4

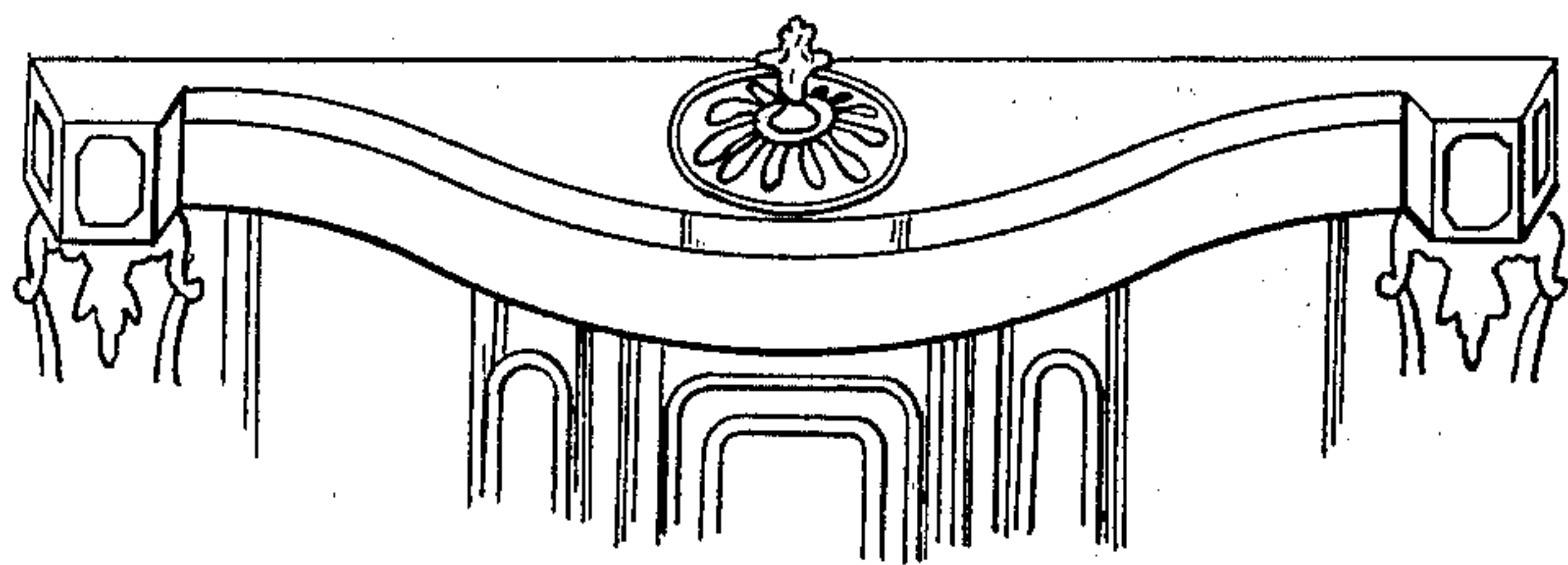


Fig. 4

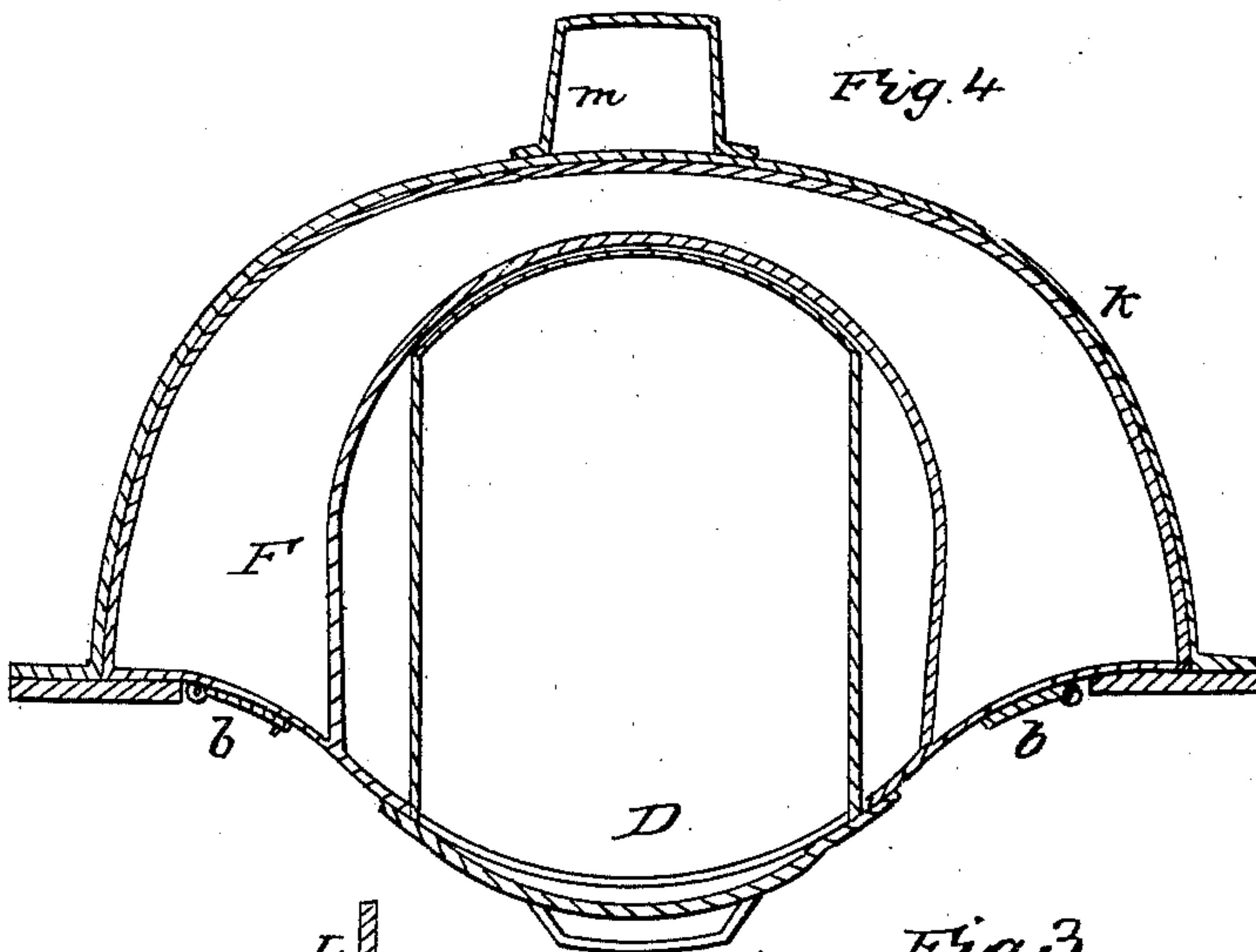
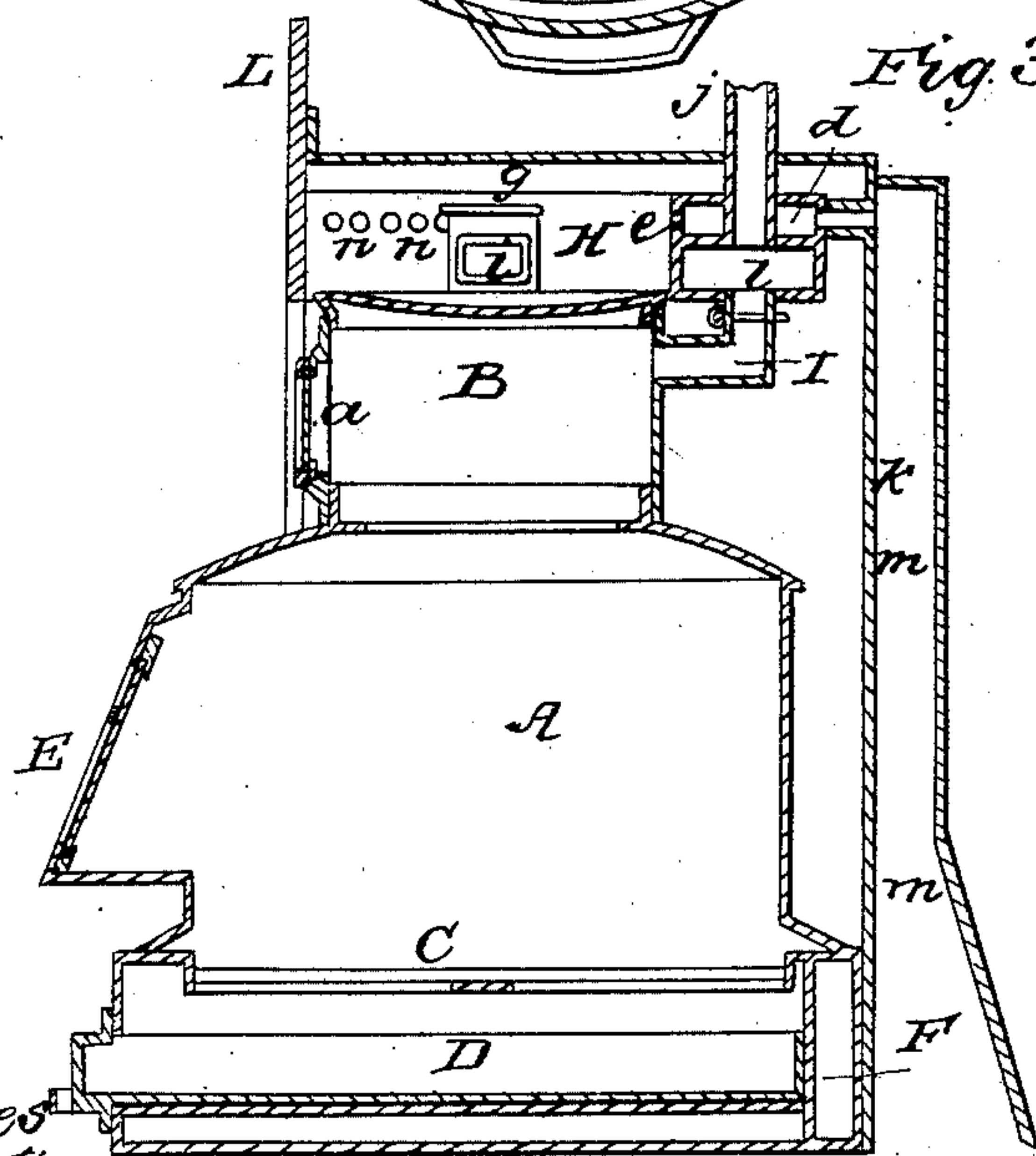


Fig. 3



Witnesses  
In 4 and 11  
M. L. Kellum.

Inventor  
H. R. Robbins



# UNITED STATES PATENT OFFICE.

H. R. ROBBINS, OF BALTIMORE, MARYLAND.

## STOVE.

Specification forming part of Letters Patent No. 23,396, dated March 29, 1859; Reissued November 12, 1872, No. 5,145.

*To all whom it may concern:*

Be it known that I, H. R. ROBBINS, of Baltimore, in the State of Maryland, have invented a certain new and 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 which—

Figure 1, represents a front view of a stove constructed according to my improvement. Fig. 2, is a vertical longitudinal section thereof. Fig. 3, a vertical transverse section of the same, and Fig. 4, a horizontal section taken as denoted by the line *x, x*, in Fig. 1.

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

My improvement relates to that description of stoves in which the body proper of the stove has connected with it, auxiliary or outside air heating, and distributing and radiating appliances, and combines a certain advantageous construction and arrangement of these latter and the body with a back casing designed to adapt the stove in a close, economical and ornamental manner, to fit in the usual hearth or "fire-place" of a room, where such disposition of the stove is preferred.

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

A, is the fire-pot or chamber of cylindrical form, surmounted by a heat pot B, having a deflector top and front door *a*, which latter serves to cover the charging aperture and whereby the fuel may be supplied to the fire pot above the burning mass and without let or hindrance from the mass in a heated state and without risk of the dress of the person feeding in the coal taking fire from an outward blast.

C, is the fire grate pivoted to rock horizontally when it is desired to clear the grate bars of ashes or dirt obstructing the draft, and D, the ash pan or drawer arranged to slide out in front.

The fire chamber A, which may be suitably lined, is cut away or formed with an opening in front nearly the whole of its depth, and for nearly or about half its circumference, which opening is incased with an ornamental transparent face plate E, of

curvilinear form in its cross run, but set inclined in direction of its depth so as to project considerably more at the bottom than the top in order that the fire may be reflected through it in an oblique direction upwardly to meet in a direct and cheerful manner the face of a person sitting or standing in moderate proximity to the stove, and this at different points of observation around the front by reason of the encircling character of said face plate.

The fire chamber with its transparent face plate and heat pot, rests on a hollow pedestal or stand F, of the form shown in Fig. 4, and which serves, by side doors *b, b*, in front, to admit and pass at pleasure air from the room in any desired amount, around the ash-box or pit and up through side columns G, G, into the lower passage *c*, of a horizontally divided upper back encircling chamber H, that, by means of a partition plate *d*, is divided into an upper passage *e*, and lower passage *c*. The lower one (*c*), of these passages is provided at each side in front with a door *f*.

The smoke pipe I, is carried from the heat pot B, up into the lower passage *c*, of the upper back encircling chamber H, and the smoke passed from thence up through an adjacent pipe J, arranged to pass through the upper passage *e*, of the upper back encircling chamber and to form a communication with the lower passage *c*, thereof.

In addition to the smoke-pipe I, from the heat pot, the fire chamber A, is surmounted on each side of the heat pot with heat or smoke pipes *g, g*, provided in front with transparent reflectors *h, h*, and connected at top by a horizontal pipe *i*, situated over the heat pot and extended to connect on one side with the lower or smoke passage *c*, of the upper back encircling chamber H, which latter may be firmly held to the lower portion of the structure by vertical bolts *k, k*, passed within the side columns G, G.

The main smoke pipe I, may be provided with the usual throttle damper *l*, to be operated by rods suitably arranged for the purpose, but it is not on this damper alone, nor yet on it in conjunction with the ash drawer D, that I depend for every necessary regulation of the draft for not only do the pedestal F, with its side doors *b, b*, columns G, G, back encircling upper chamber H, with its side door *f*, and fire chamber heat pipes *g, g*,



and *z*, serve to establish a large reflecting and air heating and diffusing surface, but the doors *f*, and *b*, *b*, are useful in addition to regulate the draft, and by their combined  
 5 action, arranged as described, I find a most beneficial effect in this respect is attained, as by them the draft may be quickly checked when the stove becomes overheated without producing a too sudden diminution in the  
 10 temperature of the room by reason of the increased air circulation and reflecting capacity which is established in so checking the draft. Such an arrangement is necessarily productive of a large degree of econ-  
 15 omy in the consumption of fuel, but I enhance the value of the whole structure in this respect by encircling the back and top of the stove with a reflecting bonnet or back case *K*, having too, in its rear, a conduit or  
 20 pipe *m*, which serves to conduct cool air from below up into the upper passage *e*, of the back upper encircling chamber *H*, from which when heated the air escapes by perforations *n*, *n*, into the room.  
 25 A front plate *L*, of an ornamental character and forming "pilasters" and "entablature," is fitted on to the back bonnet or case in front and serves to adopt this economical and convenient stove arrangement to fit in  
 30 the fire place of a room where it may be placed, by reason of its structure and regu-

lating contrivances, to more advantage than most or all other stoves.

Instead of the plate *L*, a frontispiece *M*, similar to that shown in Fig. 5, may be em- 35  
 ployed. The construction of the stove when the plate *M* is used is substantially the same as described, excepting that the shape of the castings must be adapted to the position and form of the frontispiece *M*. The object in 40  
 using the frontispiece *M*, is that the stove may be thrown slightly out of the fire place and an ornamental pot *N*, for containing water placed on the same, as represented.

What I claim as my invention and desire 45  
 to secure by Letters Patent, is—

The combination of the fire chamber *A*, with its inclined front encircling, transparent face plate *E*, heat pot *B*; pedestal *F*, with its doors *b*, *b*, upper back encircling 50  
 chamber *H*, with its doors *f*, and divided horizontally as described; smoke and heat pipes *I* and *g*, *g*, *i*, and back case or reflecting bonnet *K*, having a conduit *m*, arranged to conduct air to the one perforated passage of 55  
 the upper back encircling chamber *H*, as described; the whole being arranged for operation substantially as specified.

H. R. ROBBINS.

Witnesses:

W. S. KELLER,  
 E. FERD. MAY.