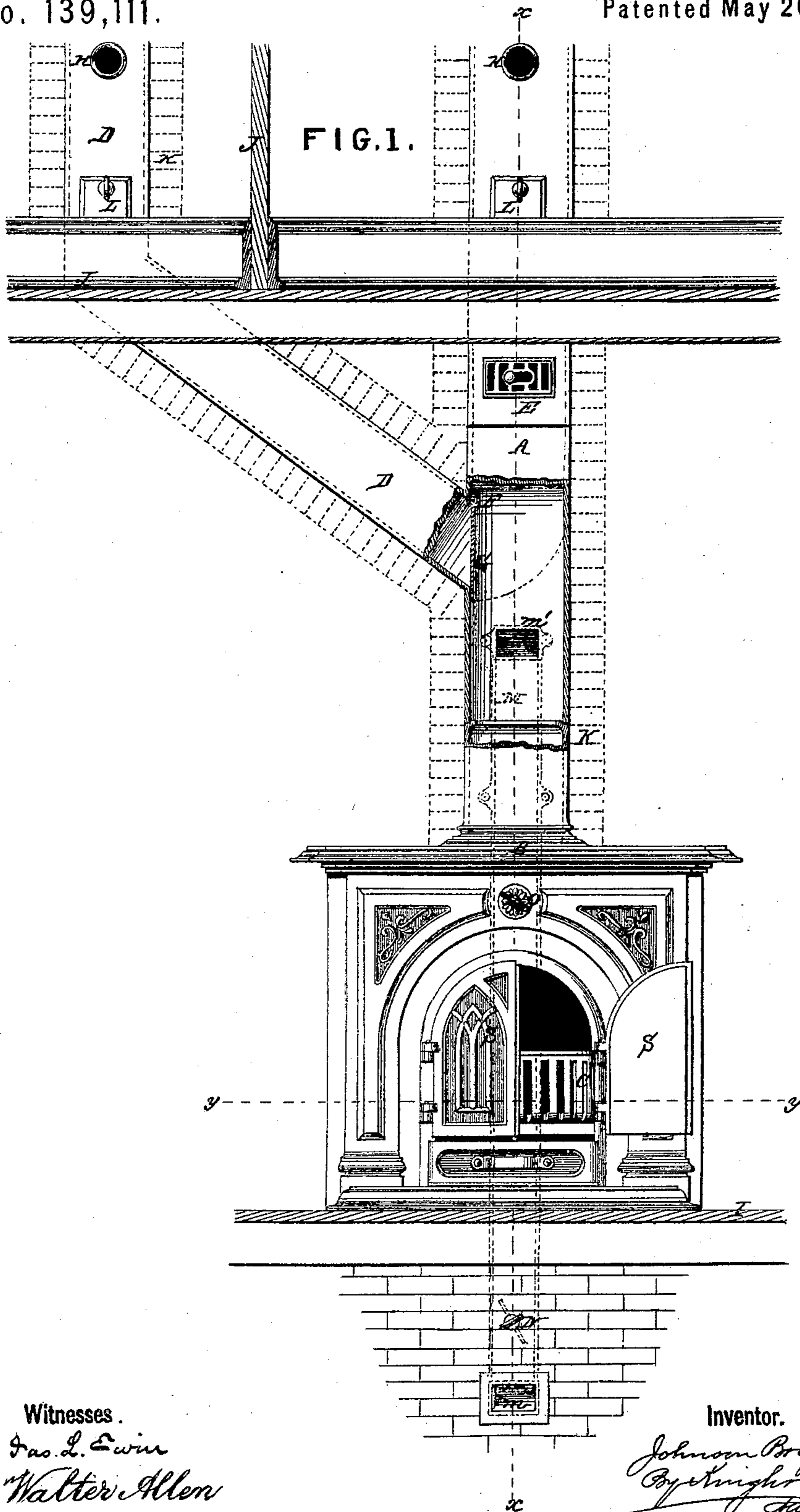


J. BRIGGS.
Chimneys and Fire-Places.

No. 139,111.

Patented May 20, 1873.



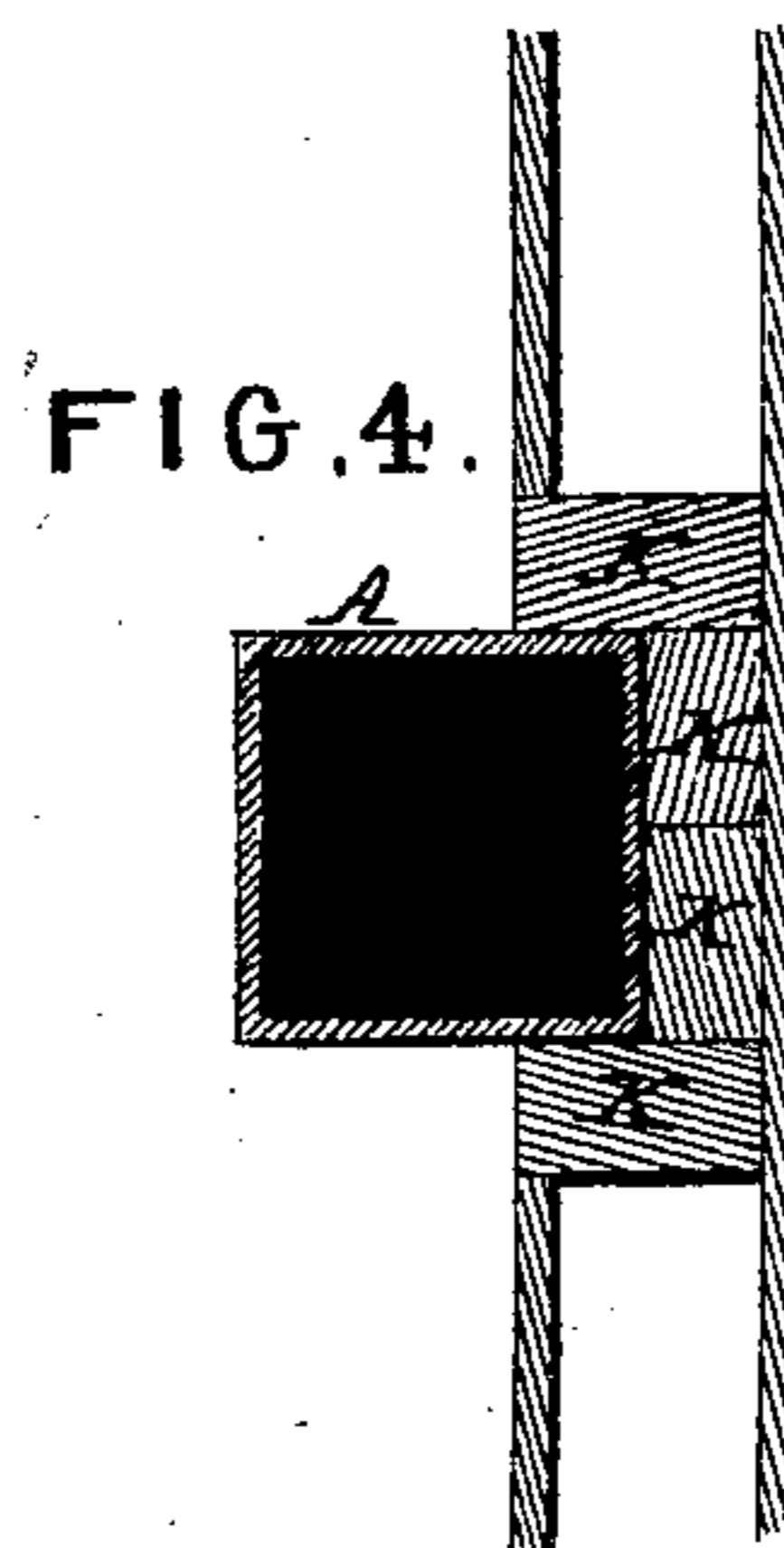
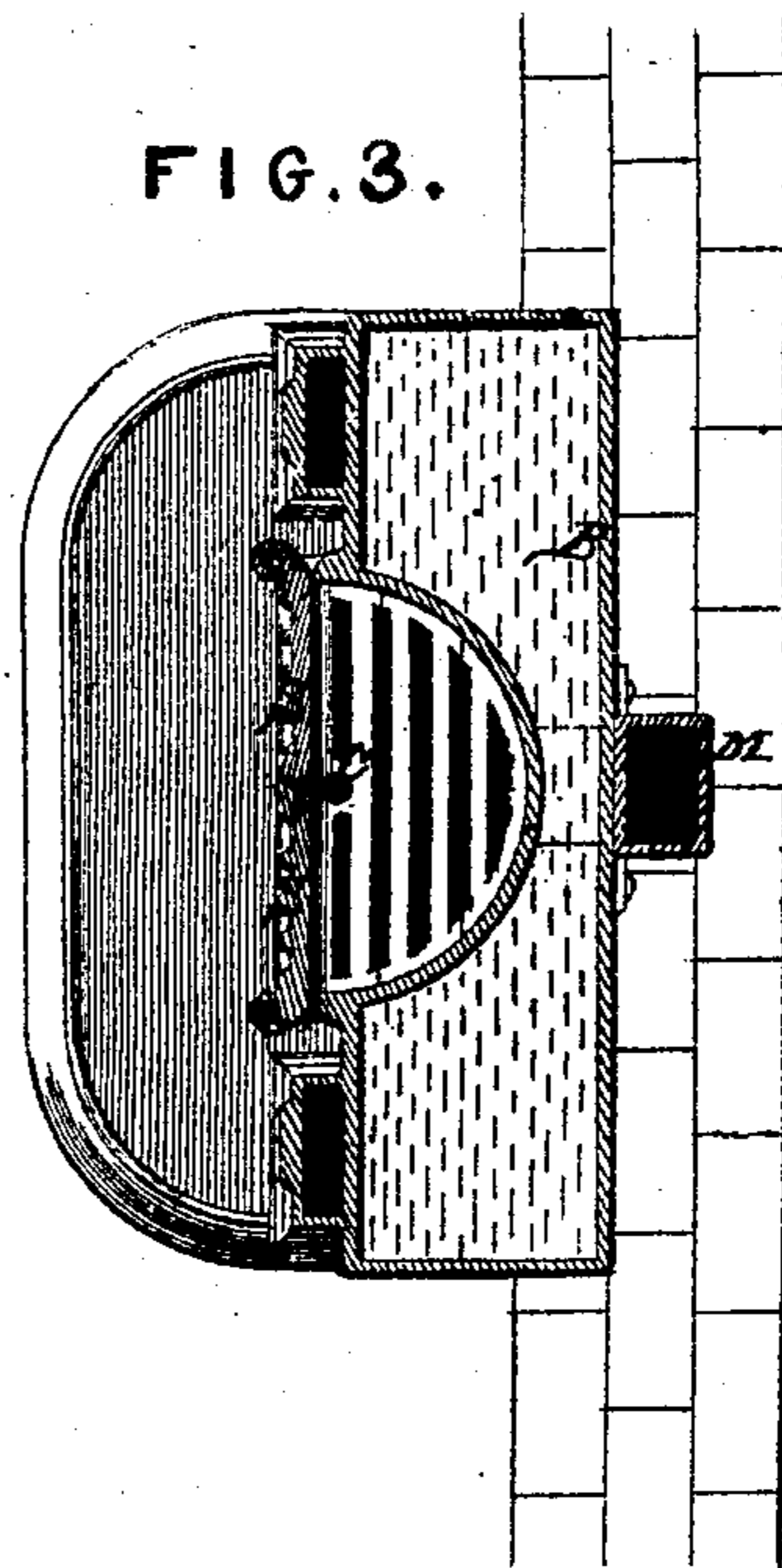
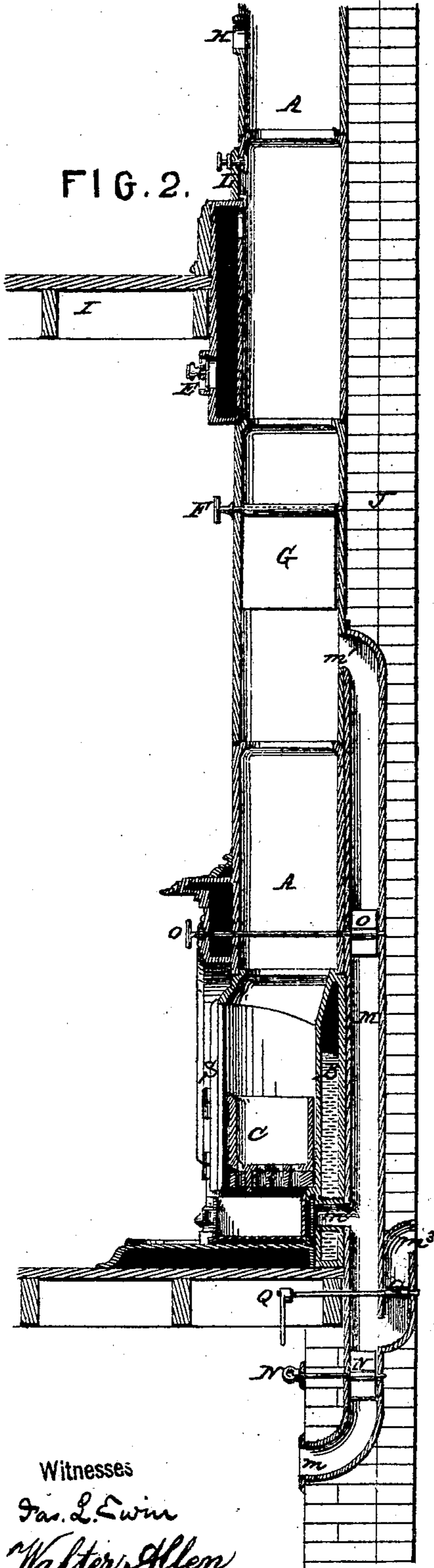
Witnesses.
Geo. L. Swin
Walter Allen

Inventor.
Johnson Briggs
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UNITED STATES PATENT OFFICE.

JOHNSON BRIGGS, OF TORONTO, CANADA.

IMPROVEMENT IN CHIMNEYS AND FIRE-PLACES.

Specification forming part of Letters Patent No. **139,111**, dated May 20, 1873; application filed October 7, 1872.

To all whom it may concern:

Be it known that I, JOHNSON BRIGGS, of Toronto, in the county of York and Province of Ontario, Dominion of Canada, have invented certain Improvements in Chimneys and Fire-Places, of which the following is a specification:

Nature and Objects of the Invention.

This invention relates to certain improvements on the ventilating fire-place and chimney for which Letters Patent of the United States were granted to me on the 9th day of July, 1872, No. 128,847. My present improvements consist in combining, with the cast-iron ventilating-chimney described in my aforesaid patent, a supplemental pipe or shaft by means of which the ventilating action may be extended to the cellar or apartments below the fire-place.

Description of the Drawing.

Figure 1 is a sectional elevation, showing parts of the two stories and basement or cellar of a building with my improved apparatus applied. Fig. 2 is a vertical section of the same on the line $x x$, Fig. 1. Fig. 3 is a horizontal section at $y y$, Fig. 1. Fig. 4 is a horizontal section, illustrating a mode of applying the metallic shaft to a wall of combustible material.

General Description.

The main trunk-shaft A, base B, grate C, branches D, ventilators E, dampers F G, pipe-holes H, fire-proof casings K, and cleaning-doors L may be constructed and arranged as described in my aforesaid patent of July 9, 1872, or in any manner which the requirements of the building to which they are to be applied may render most expedient. As in my former patent, I I represent the floors, and J the walls of the building.

Fig. 4 represents a suitable mode of applying the fire-proof casing K in an external wall of wood or other combustible material, the brick being arranged not only to protect the wall, but also to reduce the loss of heat by radiation in the external air.

In the case of inner walls or partitions between apartments, both of which it may be desirable to warm by means of a single chimney-flue or shaft, the said shaft will be so built into the wall as to expose its metallic surfaces in the front and rear in both rooms.

M, in Fig. 2, represents the supplemental shaft, having its inlet at m in the basement or cellar, and its discharge into the chimney A, at m^1 . The outline of this supplemental shaft is also indicated by dotted lines in Fig. 1. N and O are dampers, one located in the basement, and the other in the room where the grate is situated, to regulate the passage of air through the shaft or pipe M, as desired. The supplemental shaft M is made of cast-iron or other suitable metal, and may be bolted, or otherwise secured to the wall, and curved at its ends so as to open into the basement and chimney, respectively; or it may be permanently built into the wall. It may further be arranged to deliver air beneath the grate C, as shown at m^2 , to support combustion, and its ends, either or both, may be branched, as illustrated at m^3 , and fitted with damper Q, so that the air may be taken from or discharged into the external atmosphere. S S represent doors, hinged to the sides of the grate, and each made in a single plate of metal, or provided with hinges within themselves to adapt them to fold in more compact compass. These doors, when closed, serve as a blower to increase the draft of the fire in a well-known manner.

I do not claim novelty in the principle of thus employing doors to aid the draft of the fire, as I am aware that they are commonly applied to stoves of various forms; but I have found them to be especially important, in connection with my improved fire-places and metallic ventilating-chimneys, to increase or modify the ventilating action, as may be desired, as well as to control the fire.

While disclaiming novelty in the particular construction of the doors, I would further remark that I do not limit myself to the special construction of the same herein shown, because it is evident that the doors may be arranged to slide backward within or beside the

grate; or a door in one piece, and of sufficient size to cover the whole front of the grate, may be arranged to slide up, into, or above the grate.

Claim.

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

The supplemental ventilating-shaft M, in combination with the chimney A, as and for the purposes set forth.

JOHNSON BRIGGS.

Witnesses:

S. R. CLARKE,
ARTHUR J. READING.