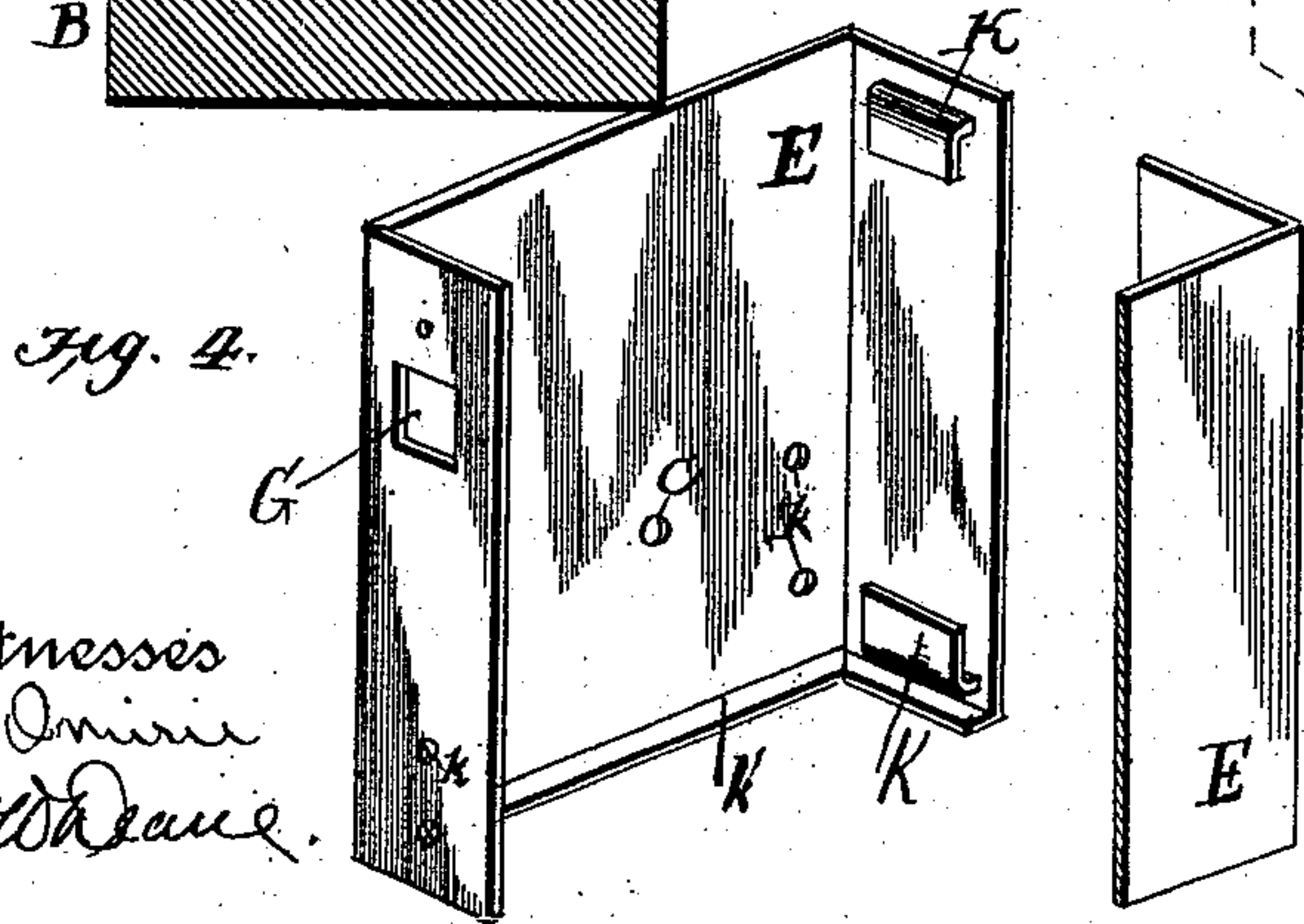
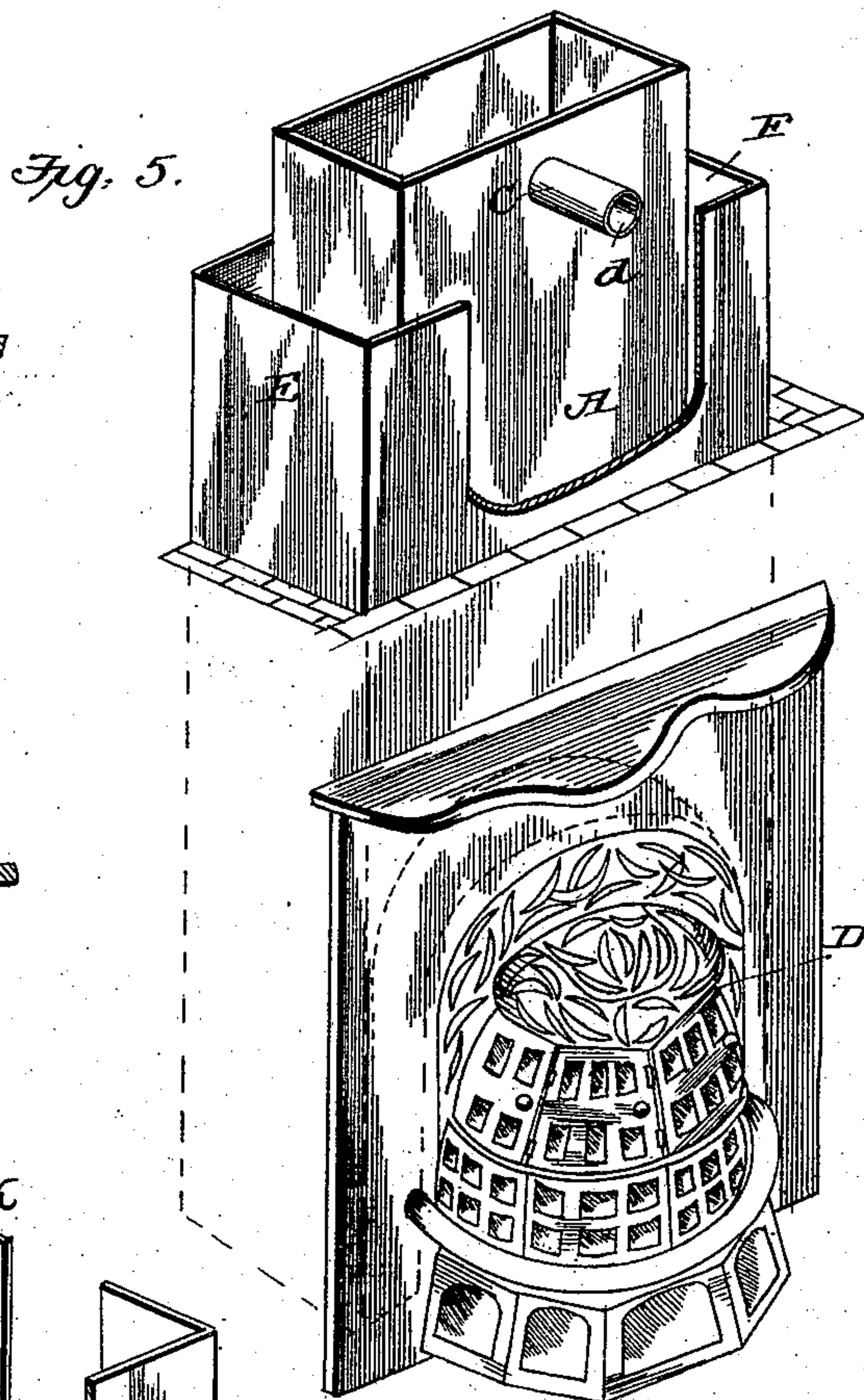
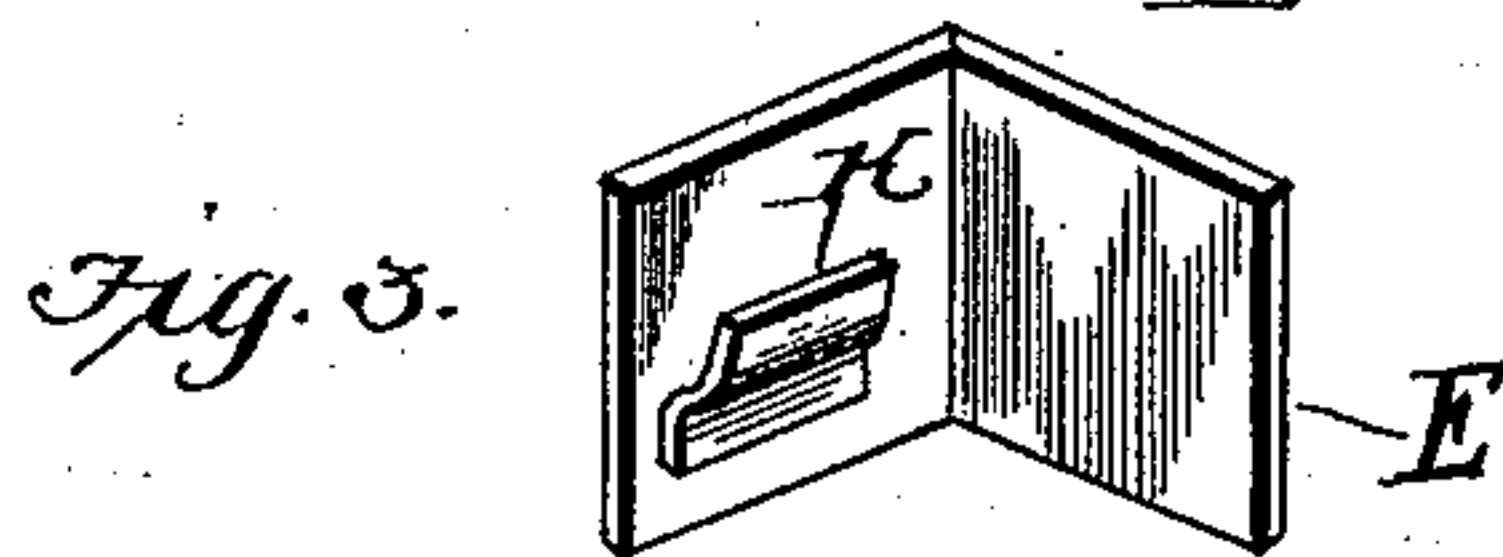
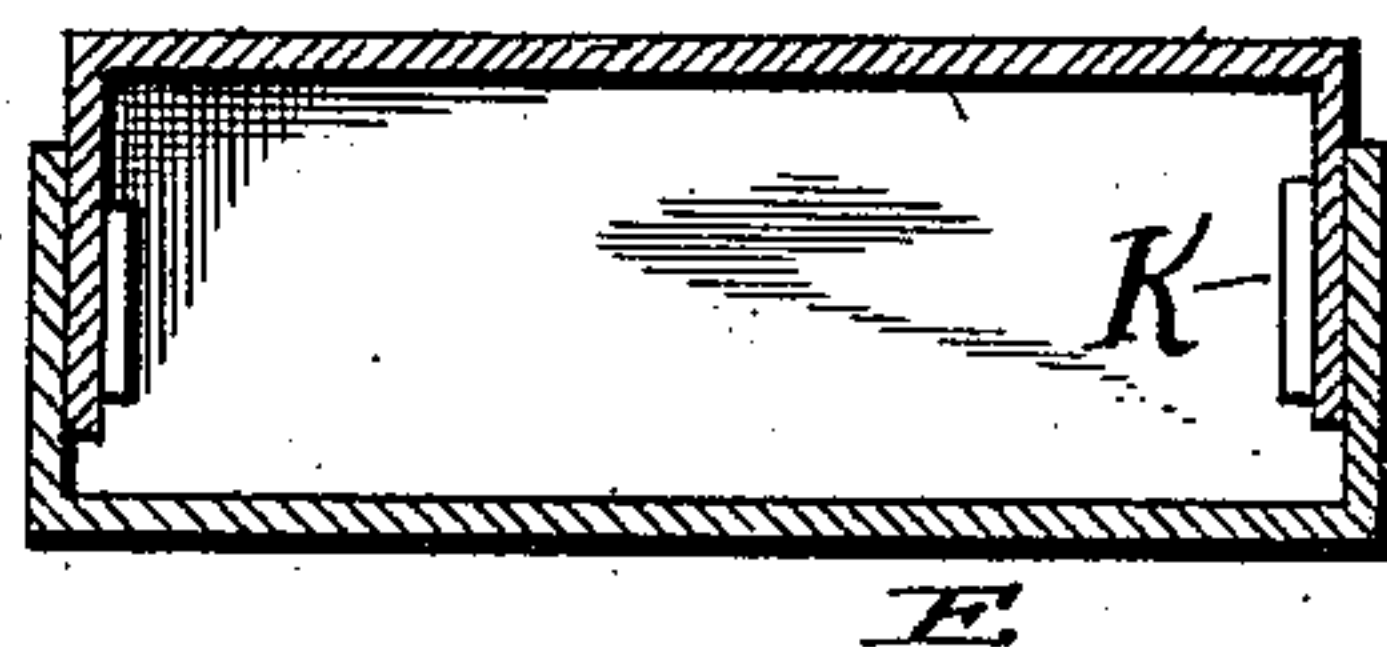
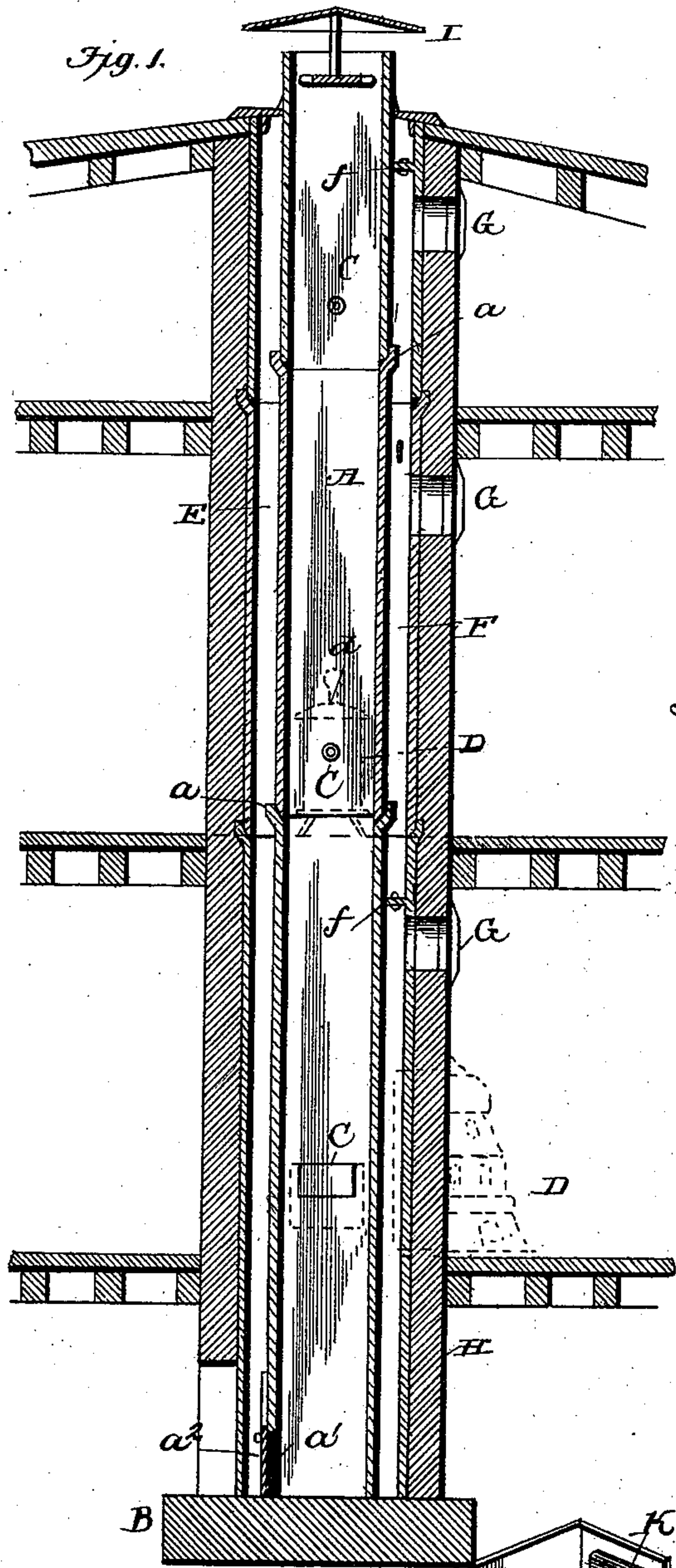


(No Model.)

E. V. WINGARD.
CHIMNEY.

No. 528,453.

Patented Oct. 30, 1894.



Witnesses
John Smith
W. W. Deane.

Inventor
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By
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UNITED STATES PATENT OFFICE.

EDWIN V. WINGARD, OF PHILADELPHIA, PENNSYLVANIA.

CHIMNEY.

SPECIFICATION forming part of Letters Patent No. 528,453, dated October 30, 1894.

Application filed November 25, 1893. Serial No. 491,976. (No model.)

To all whom it may concern:

Be it known that I, EDWIN V. WINGARD, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Chimneys; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Figure 1, is a vertical section of this invention. Fig. 2, is a cross section showing modification of the structure of the casing about the chimney. Fig. 3, is a detail of the external casing. Fig. 4, is a perspective view of the parts of the casing detached. Fig. 5, is a perspective view showing the heater as applied to this chimney on the lower story of the house and on the second story provision for attaching the pipe of the stove on that floor to the chimney.

The object of the present invention is to provide a safety chimney for houses from which there will be no danger of igniting wood work or the escape of sparks or smoke into the house, or at the roof edge; also, to utilize the heat radiating from the smoke and hot air that flows up the chimney; also to provide means whereby the heat of the chimney may be drawn off into the several apartments through which it passes; also in the structure of the several parts, and their combination with each other, and in the device or invention as a whole; all of which will be hereinafter fully described as well as pointed out in the claims.

In the accompanying drawings A, denotes the chimney proper which is made of any fire proof material cast metal preferably and in sections. It may be cylindrical or of any desired shape in cross sections. At the ends *a*, the several sections may have a flare whereby the one end will fit over the other, or be rabbeted as gas or water pipe. In this way the chimney may be made of any desired length. Usually by the weight of the section the joint between it and the next will be sufficiently tight for all practical purposes, but, if desired, any usual packing may be placed there to close all possible openings or cracks. The

vertical position of the chimney will also be insured by its own weight, though the weight of a single joint will not be great. At the lower end of the lowest pipe, which pipe rests on any suitable foundation B, in the cellar or at the floor of any story, with open fire place is an opening *a'* through which the ash particles, the cinders and soot which have fallen down the chimney may be withdrawn. This opening is provided with a proper removable cover *a''*. If desired a pan may be provided to be placed on this opening.

In each apartment through which the chimney passes is a pipe hole C, to which the escape pipe *d*, of a stove D, may be entered in the usual way.

Surrounding the pipe is a fire casing E, made in like manner to the chimney proper. Between this casing or jacket and the jacket is a space F. The pipe holes in it correspond with those projecting from the chimney proper. In this jacket or casing preferably near the top of each apartment is a register G, and above this register in the space F, is a cut off or damper *f*.

About the jacket or casing E there may be placed for ornamentation tiles H.

About the top of the chimney where it passes out of the roof of the house or building is placed a metal cap I, which covers the hot air space between the chimney proper and its casing and also serves to hold and brace the chimney firmly in position.

In the modified form of structure shown in Fig. 3, instead of making the chimney lengths in single pieces, they may be made of two pieces each rectangular or round in cross section; one section having at the upper and lower ends on the inside lips K, into which the sides of the other section fit as shown. Likewise the walls of the casing of the chimney may have instead of the register numerous air openings *k*. In order to furnish support for the upper section the lower ends in this form of the structure are turned inward to form a flange *k'*.

It will of course be obvious that while there is illustrated a chimney wholly within the house, that my chimney can be built against the house walls in the usual way, that is, so as to expose only the front and sides of it;

also a chimney may start at the floor of any story where an open fireplace is desired.

What I claim is—

1. In combination with the fire proof chimney, as described, and the fire proof jacket about it having registers, the cut off or damper in the air space between the chimney and its jacket, substantially as described.

2. In combination with a fire proof chimney, a casing about it made in sections each section composed of pieces united by means of lugs on the inside of one into which the edges of the other fits, substantially as described.

3. In combination with a fire proof chimney, a casing made in sections and each section composed of pieces securely fastened one to the other and one having at the bottom an inside ledge, whereby an upper section will rest upon one next below substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

EDWIN V. WINGARD.

Witnesses:

DAVID F. WEAVER,
JOHN L. WENO.