

C. A. LITTLEFIELD.

Fire Place.

No. 29,980.

Patented Sept. 11, 1860.

Fig: 1.

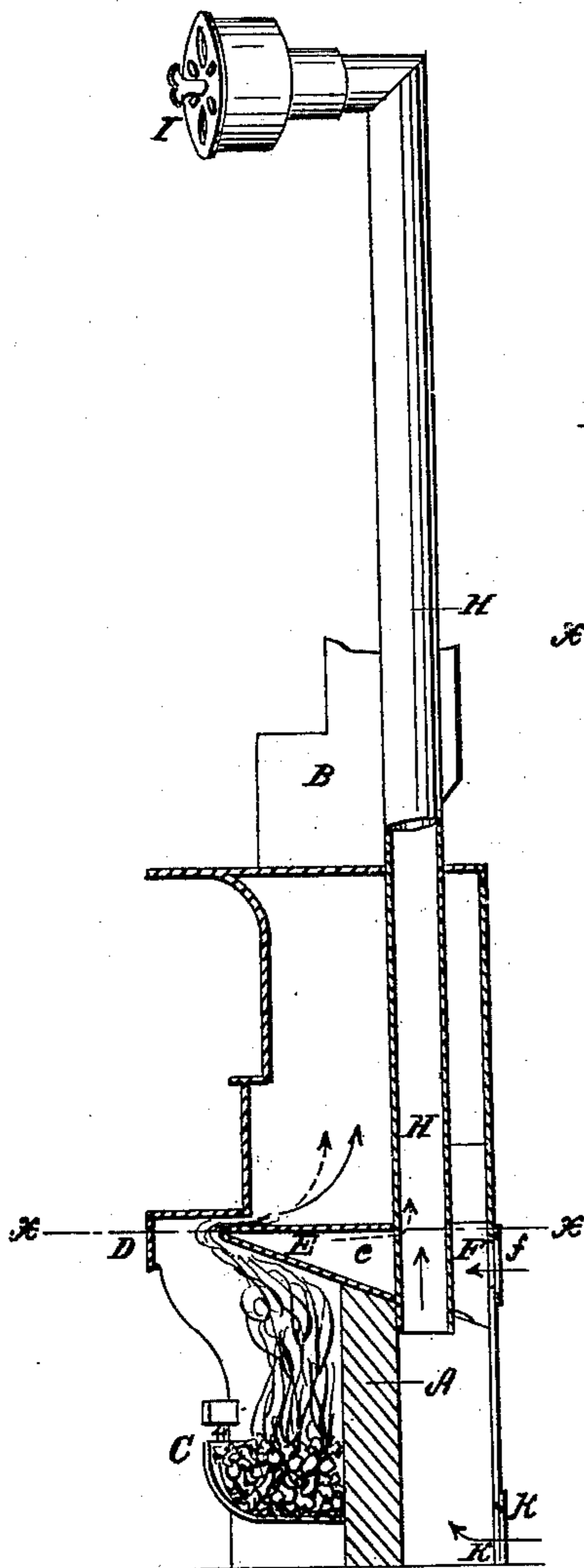


Fig: 2.

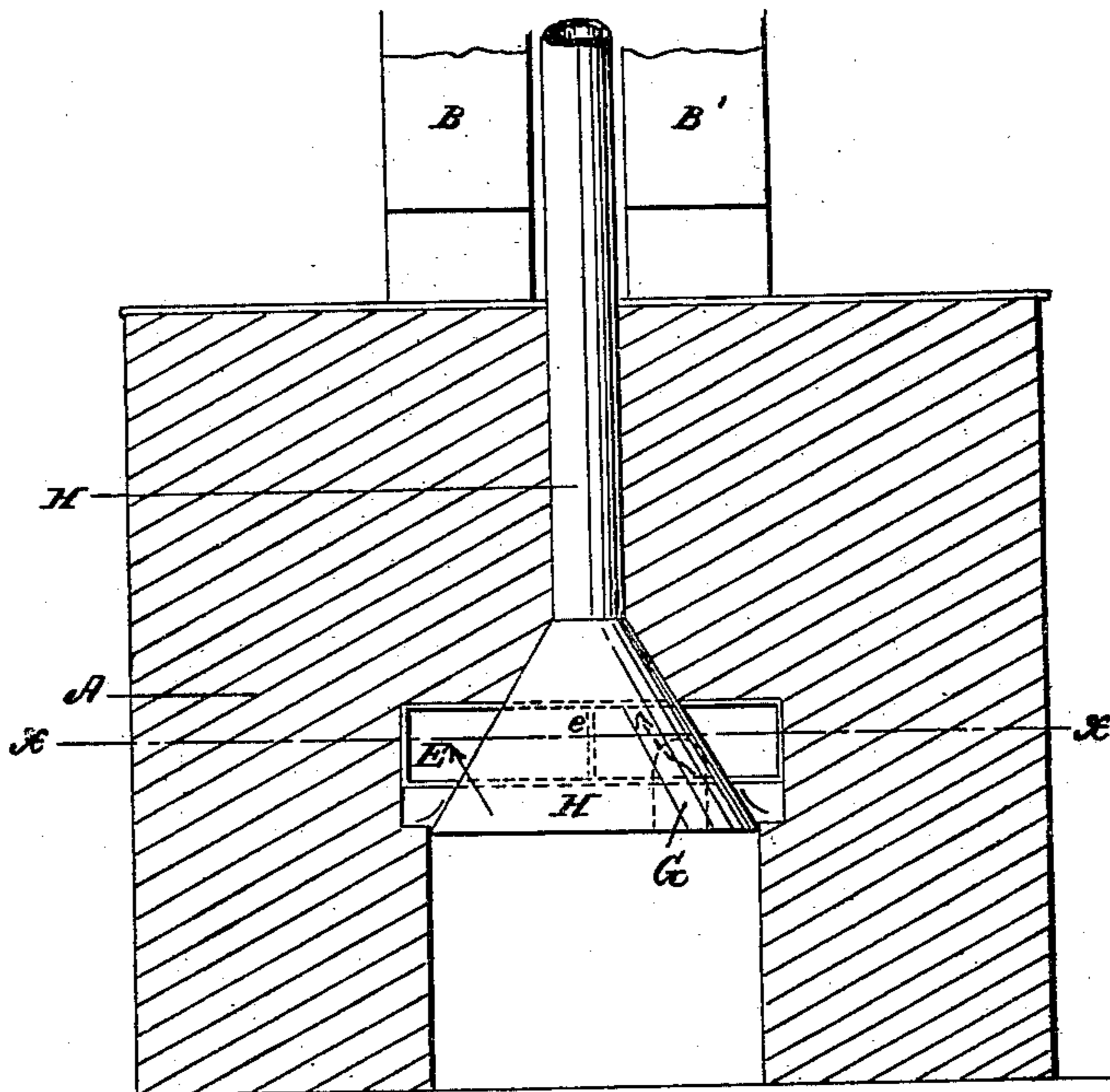
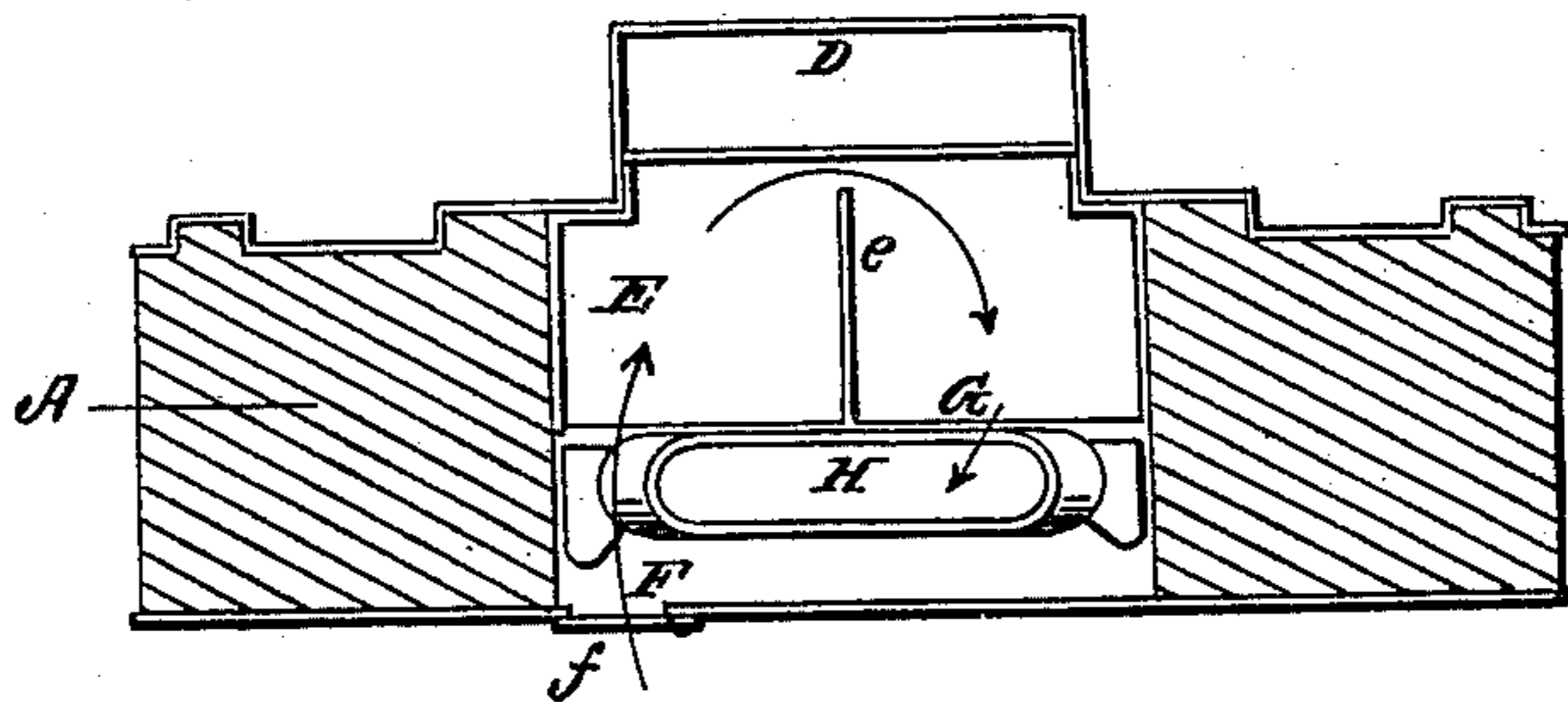


Fig: 3.



Witnesses:
John W. Clule
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For C. A. Littlefield.

UNITED STATES PATENT OFFICE.

CALVIN A. LITTLEFIELD, OF COVINGTON, KENTUCKY, ASSIGNOR TO HIMSELF AND DAVID BOYLE, OF COVINGTON, KENTUCKY.

FIREPLACE.

Specification forming part of Letters Patent No. 29,980, dated September 11, 1860; Reissued September 26, 1865, No. 2,074.

To all whom it may concern:

Be it known that I, CALVIN A. LITTLEFIELD, of Covington, Kenton county, Kentucky, have invented a certain new and useful Improvement in Fireplaces; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

My invention relates to fire places having air heating apparatus through which air may be passed, heated, and conveyed for room warming purposes to any part of a building; and consists in an arrangement hereinafter described of hollow crown and hot and cold air passages.

In the accompanying drawings Figure 1, is a vertical section of a fire place embodying my improvement. Fig. 2 is an elevation of back part with wall removed. Fig. 3 is a horizontal section on line *x x*, Figs. 1 and 2.

A is the fire place setting, B B' the chimney flues and C the grate.

D is a bonnet forming a smoke conductor, fixed as shown over the fire place.

E is a chamber in which cold air from the outside of fire place is allowed to enter, forced to circulate and become heated. It is set in the brick work as shown directly over the fire grate and communicates with the outside of fire place through an opening F, and through opening G with a tube H passing upward between flues B B' and is used to convey the heated air to parts of building desired. Conveying tube H is provided with suitable register or registers I. The heater E is fitted with a partition *e* de-

vised to cause the air to properly circulate through the heater before entering tube H.

The direction of the current of air is represented by arrows. The opening F is provided with a door *f* used to regulate the supply of cold air to the heater.

An opening K provided with suitable door *k*, is allowed at times to supply cold air to the conveying tube H, with which it directly communicates, to unite with the air passed through heater E and thus regulate the temperature of air passed through tube H to suit the requirements of rooms being heated.

By proper adjustment of doors *f* and *k* the temperature of air passed through tube H may be regulated as desired.

I am aware that chambers have been applied behind and around fire places to heat air and supply the same to other apartments and also that arching crowns have been employed having the same effect upon the fire and flue as my hollow crown E.

I claim as new and of my invention herein—

The arrangement of the bonnet D hollow crown E, partition *e*, tube H, flues B B', apertures K, F, G, and doors *f* and *k*, constructed combined and operating in the manner and for the purposes set forth.

In testimony of which invention, I hereunto set my hand.

C. A. LITTLEFIELD.

Witnesses:

C. P. HOGSHEAD,
FRANCIS MILLWARD.