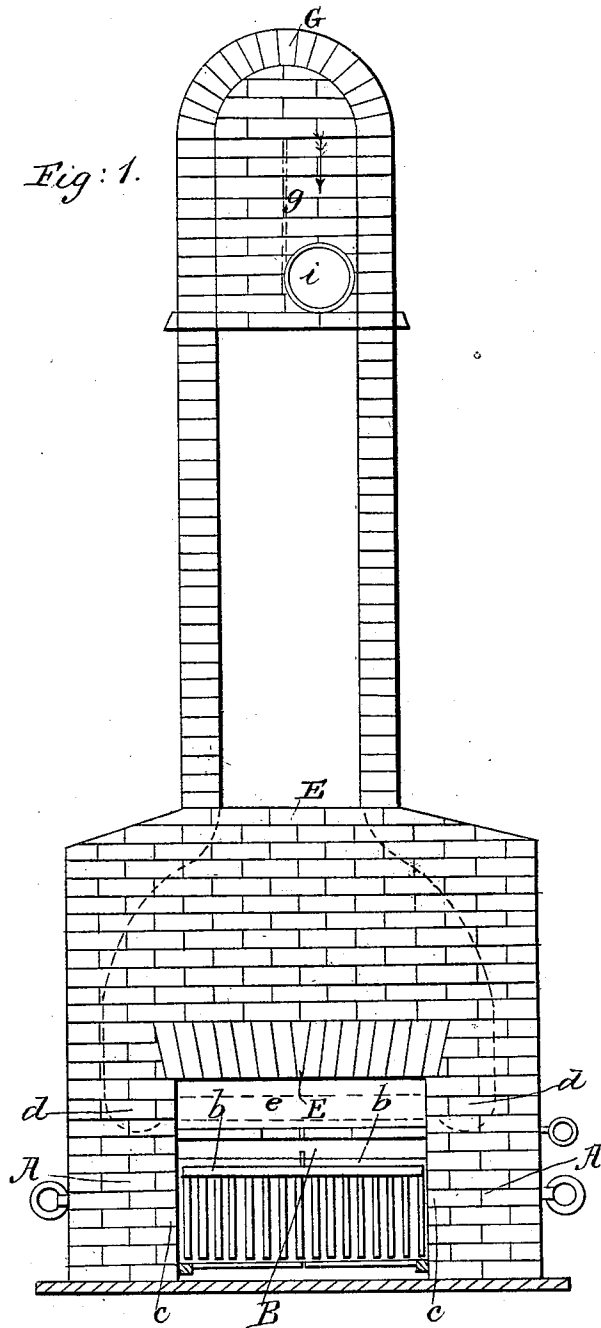


D. HEMINGWAY.

Fire Place Flue and Chimney.

No. 29,168.

Patented July 17, 1860.



Witnesses
E. M. Woodruff
L. F. Callan

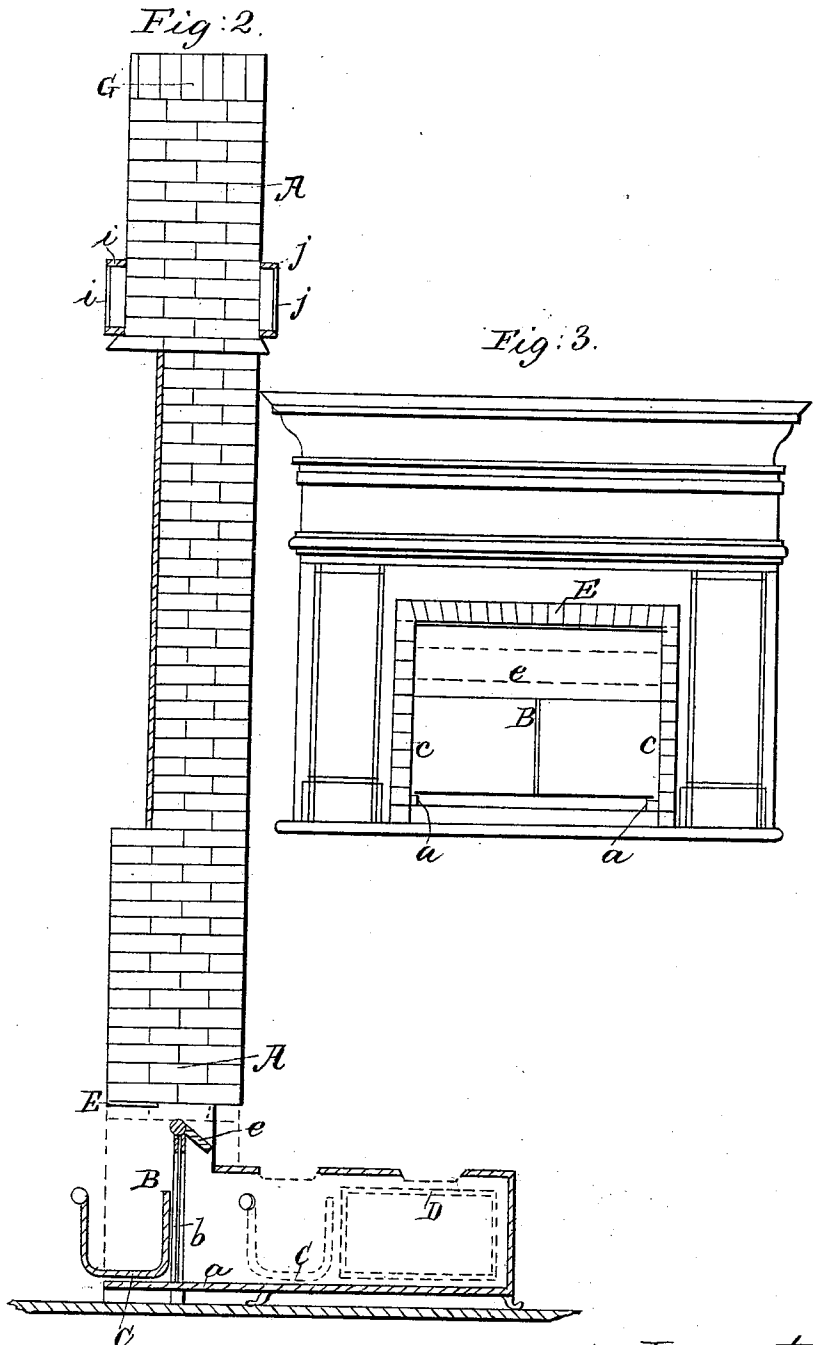
Inventor
D. Hemingway
by Attorney J. B. Woodruff

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UNITED STATES PATENT OFFICE.

DANIEL HEMINGWAY, OF COVINGTON, KENTUCKY.

FIREPLACE AND CHIMNEY.

Specification of Letters Patent No. 29,168, dated July 17, 1860.

To all whom it may concern:

Be it known that I, DANIEL HEMINGWAY, of the city of Covington, county of Kenton, State of Kentucky, have invented new and useful Improvements in Fireplaces, Grates, Flues, and Chimneys; and the following is a clear and exact description of the same, reference being made to the accompanying drawing, making a part of this specification, in which—

Figure 1 shows a front view of fireplace and flues, in red lines. Fig. 2 is an edge view of the chimney with cooking stove in the rear of the fire place in adjoining room; Fig. 3, fire place and grate, with sliding doors closed in front to shut the grate from view.

The nature of my invention consists in the construction of chimneys, and fireplaces, having an aperture through the back, to be closed by sliding doors, in the rear of which is arranged a cooking stove, so that a fire built in a grate, or on a hearth, may be moved through the aperture from one room, or place to the other, without disturbing the fire, for the purpose of heating or cooking, as may be desired.

My invention further consists in giving as much space as possible in the flue on each side, and above the mantel to contain the oxygen of the atmosphere, by which means much of the gas and smoke is consumed, then by contracting the flue above, too strong a draft is prevented, and by putting a division in the top of the chimney, capping over, and turning the smoke downward, to be liberated at small outlets, the heat is retained in the chimney, to be radiated into the upper rooms, through thin metal plates, thereby giving them an agreeable temperature at no additional cost of fuel.

To enable others skilled in the art to make and use my invention, I will describe it, reference being made to the accompanying drawings.

(A, A,) represents brick work of a chimney having a fireplace (B) of any size, into which a grate (C) or a movable hearth is fixed in such a manner as it can easily be moved on ways (a, a.) The back of the fireplace above the grate is built stationary and made of iron, tile, or other material which may be carried up near the center of

the flue and parallel with the front, until opposite the mantle (Fig. 1). Here, it turns, curving backward and downward, (e, Fig. 2.) I also make curves, (d, d, Fig. 1) on either side in the jamb and beyond the fireplace, starting from which and curving downward, form an enlargement of the flue in which much of the oxygen of the atmosphere is held, and in which the gas, and some of the smoke is consumed. Here the heated and rarefied air has a tendency to rise rapidly and thereby create a very strong draft, but by contracting the flue as shown at (F in Fig. 1) it is made to perform the important function of warming the rooms above by distributing the heat through metal plates (f, Fig. 2,) which form the face of the chimney in said rooms, and which metal face I use instead of brick. Again, in order to prevent too strong a draft and save all the heat possible, I close the top of the chimney, as seen at (G, Fig. 1.) Then I put a division or partition (g) in the center of the flue, over which the smoke passes, so as to turn the draft downward as shown by arrow in Fig. 1, so that all that escapes must pass out of the small apertures (i, and j, Fig. 2) which are opposite each other a short distance below the top of the chimney and at the bottom of the said division or partition, by which arrangement the chimney cannot smoke let the wind vary as it will.

At the bottom of the back of the fireplace (B) and immediately behind the grate (C, C) are placed sliding doors (b, b,) which, parting in the middle and being slid into the jambs (c c) leave sufficient opening through which to pass or slide the grate (without disturbing the fire) into a cooking stove (D,) in the rear of the fireplace a room which may adjoin, and where, by leaving the sliding doors open, it, (the grate) may do the double work of warming one room, and cooking in the other, by means of the stove—into, and out of which it can be moved at pleasure, without disturbing the fire.

I desire to state, that I have been a practical chimney builder for more than forty years, and have studied the subject long and faithfully, and have experimented so as to fully test the practicability of the principles herein set forth and fully believe, that by

the general adoption of the plan of my invention in constructing chimneys fully fifty per cent. of the heat will be saved and the great evil of "a smoking chimney;" and a
 5 "scolding wife" would be remedied.

The advantages of using one fire for heating two rooms for cooking, etc, by my arrangement, will readily be seen, as in most families and boarding houses they do not
 10 require a fire to be kept up in the dining room at all times, so that when the cooking has been accomplished, the fire is not needed in the stove or range,—the whole may be shifted through into the dining room, the
 15 sliding doors closed, when it will be in as good condition, and look as cheerily, as if it had been there permanently.

The temperature of sleeping apartments in cold weather, will be made very agreeable,
 20 by the heat emitted from the plates which may form a part of the whole of the front

of the chimney, in each story of the upper rooms.

Having thus fully described my invention, what I claim as new and desire to secure
 25 by Letters Patent is—

1. The aperture in the back of fire place, to be closed by sliding doors; in combination with a cooking-stove, or range, in the rear, substantially as, and for the purposes
 30 specified.

2. The enlarged space, on each side and above the mantle, as arranged, the contracted flue above; the metal plates in front, the partition in the top, and small outlets,
 35 all in combination—as herein specified, for the purposes set forth.

DANIEL HEMINGWAY.

Witnesses:

C. H. MOOAR,

A. MADERIA,

JOHN MÖLLER.