

D. HEMINGWAY.

Chimney.

No. 3,821.

Patented Nov. 13, 1844.

Fig. 6.

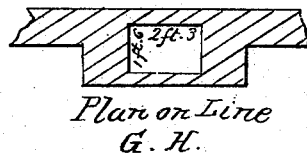


Fig. 3.

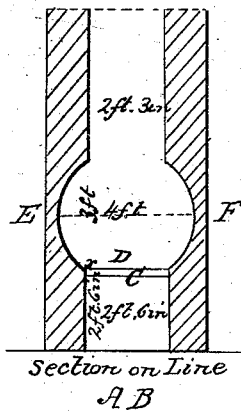


Fig. 2.

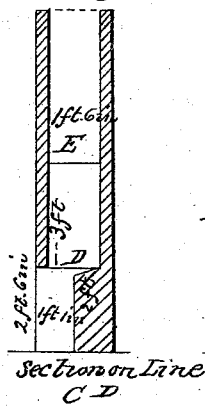


Fig. 1.

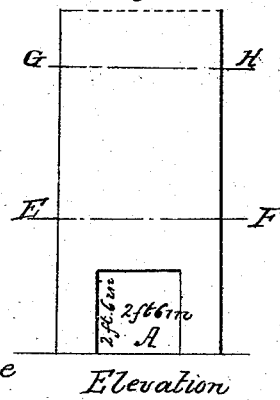


Fig. 4.

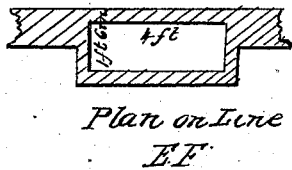
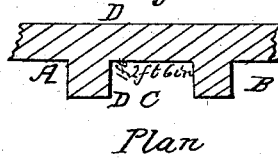


Fig. 5.



UNITED STATES PATENT OFFICE.

DANIEL HEMINGWAY, OF LEESBURG, KENTUCKY.

FIREPLACE.

Specification of Letters Patent No. 3,821, dated November 13, 1844.

To all whom it may concern:

Be it known that I, DANIEL HEMINGWAY, of Leesburg, in the county of Harrison and State of Kentucky, have invented a new and improved mode of constructing fireplaces and flues, so as to secure a good draft and effectually prevent smoking; and I do hereby declare that the following is a full and exact description of the same, reference being had to the annexed drawings of the same, making part of this specification.

Figure 1 is a front elevation of the fireplace, &c., Fig. 2 is a vertical transverse section of ditto, Fig. 3 is a vertical longitudinal section of ditto, Fig. 4 is a horizontal section through the chimney at the enlargement, Fig. 5 is a horizontal section through the fire place, jambs, &c., Fig. 6 is a horizontal section through the chimney at a point above the enlargement.

The nature of my invention consists in an enlargement of the flue immediately above the arch, which enlargement, or reservoir, receiving a quantity of heated air, produces a current upward, and necessarily makes the draft strong, so as to take up all the smoke;—and in combination therewith, causing the flue to recede from the fire place at a suitable angle, upward, immediately below the drop.

A, represents the fire place, which may be two feet six inches wide, and two feet six inches in height, to the arch. The depth is seen at B in Fig. 5, about one foot one inch,—it may be more or less. The back of the fire place rises perpendicularly two feet to C, (Fig. 3) and then falls back, inclining upward one foot or more to D, (Fig. 2) which is just as high as the arch. From each end of the line D (Fig. 3) the flue

widens in a circular line, till at its widest place (at the line E F) it is four feet in width; then it is contracted in a curved line to the width of two feet and three inches; making the height of this enlargement three feet. The width of the flue as seen at E Fig. 2 is one foot 6 inches. Fig. 4 shows the area of the flue on the line E, F,—Fig. 6 shows the area of the flue above the enlargement. These proportions however may be varied according to circumstances—and also the shape of the enlargement may be varied and yet much of the benefit derived.

By cutting away the back of old chimneys, about six inches below the arch, to the depth of one foot or more, and also the sides above the arch, smoky fireplaces may be made to draw well. Sometimes it is found necessary (to make the enlargement as great as necessary) to cut from the breast also, observing to remove the material of which the flue is constructed, to the height which may be found necessary, in order to procure an enlargement sufficiently great on all sides.

I do not claim expanding the flue above the throat, but

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

Dropping the back of the fire place below the arch, in the manner described and represented, in combination with the expanding flue, substantially in the manner set forth.

DANIEL HEMINGWAY.

Witnesses:

EDWIN MAHER,
A. E. H. JOHNSON.