

W. S. WINFIELD.

Ventilating Attachment to Hearths.

No. 161,724.

Patented April 6, 1875.

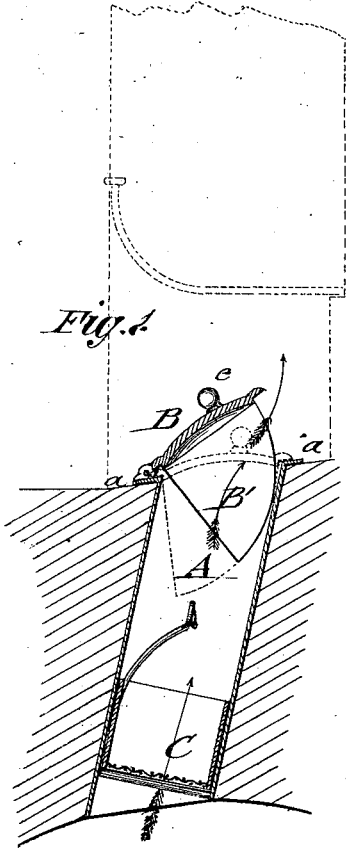


Fig. 1.

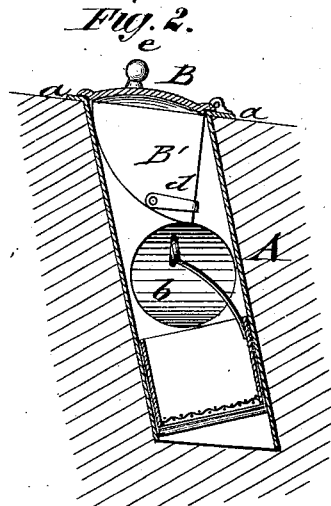


Fig. 2.

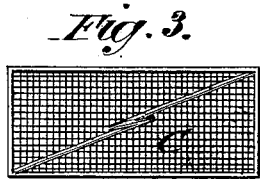


Fig. 3.

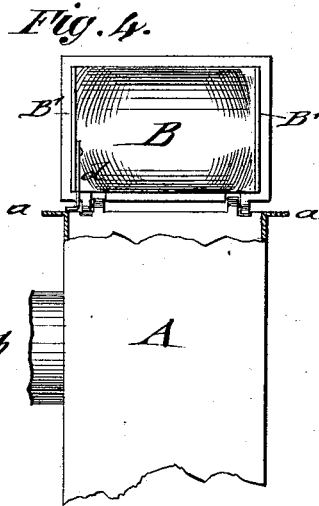


Fig. 4.

WITNESSES:

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WILLIAM S. WINFIELD, OF CROSS PLAINS, TENNESSEE.

IMPROVEMENT IN VENTILATING ATTACHMENTS TO HEARTHES.

Specification forming part of Letters Patent No. 161,724, dated April 6, 1875; application filed January 30, 1875.

To all whom it may concern:

Be it known that I, WILLIAM S. WINFIELD, of Cross Plains, Robertson county, Tennessee, have invented a new and Improved Ventilating Attachment to Hearths, of which the following is a specification:

Figures 1 and 2 represent vertical transverse sections of my improved ventilating attachment to hearths; Fig. 3, a top view of the cinder-basket detached, and Fig. 4, a front view of the attachment.

Similar letters of reference indicate corresponding parts.

My invention relates to a ventilating attachment to the hearths of open fire-places or grates, by which the kindling of the fire, when the doors and windows are closed, is greatly facilitated, the draft increased, and the smoking of the chimney completely prevented.

My invention consists of a box-shaped attachment, with hinged and concaved lid and cinder-basket, set into the floor below the grate, to communicate either with the story below, or by a pipe with the outside air, for supplying the required ventilation on the opening of the lid for the ready kindling of the fire, &c.

A represents the ventilating box or casing, which is made preferably of rectangular cross-section, and of suitable sheet metal placed in the hearth of open fire-places or grates a few inches in front of the fire-place, being provided with a top flange, *a*, that rests on the top of the brick, stone, or other material of which the hearth is made. The hollow casing A is extended either through the floor to communicate by its open bottom with the story below, which is the best way in the basement story, or connected, by a side or bottom opening, *b*, and the exit pipe, with the outside air, for the purpose of furnishing a current of air through the casing to the grate whenever the hinged lid B is thrown open. The lid B is provided with side wing plates or guides B', so that it forms an extension of the casing, and throws, in connection with its interior concavity, the current of air to any required point in the grate, according to the angle of inclina-

tion at which the lid is adjusted. A spring, *d*, or equivalent device, of the wing-plates, secures, by its pressure on the side walls of the casing, the position of the lid at any angle. A button, knob, or ring, *e*, of the lid serves to open it for setting and throwing it back entirely, if it is desired to remove the cinder basket or box C, which is supported at the lower part of the casing, and provided with a perforated or wire bottom for collecting the coals or cinders which fall through the top opening when the ventilator is in use.

The fire may be kindled with the greatest ease, even when the doors and windows of the room are closed, by merely opening the top of the ventilator, and directing the air-current on the kindling-wood. When the smoke is not conveyed through the chimney, which is the case with many chimneys, especially during the kindling of the fire before it is fully ablaze, the top is opened, and the current of air, passing along the arch through the chimney, carries the smoke out, so as to relieve the chimneys from a very disagreeable and annoying feature. After the fire is burning in regular order the ventilator is closed, sufficient air being supplied to the fire by the draft of the chimney from the air in the room, to be used again, as necessity requires, for kindling the fire or for carrying away the smoke.

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

The ventilating attachments to hearths of open fire-places or grates, composed of a hollow box or casing set into the bottom of the hearth, to communicate with the air outside of the room, and provided with a hinged or adjustable lid, with side wing-plates, for throwing a direct current of air on the grate, substantially as specified.

WILLIAM S. WINFIELD.

Witnesses:

E. W. STRAIN,
W. A. LINK.