No. 650,050. Patented May 22, 1900.

W. H. PHENICE.

CHIMNEY THROAT BRIDGE PIECE.

(Application filed Aug. 17, 1899.)

(No Model.)

Fig. 1.

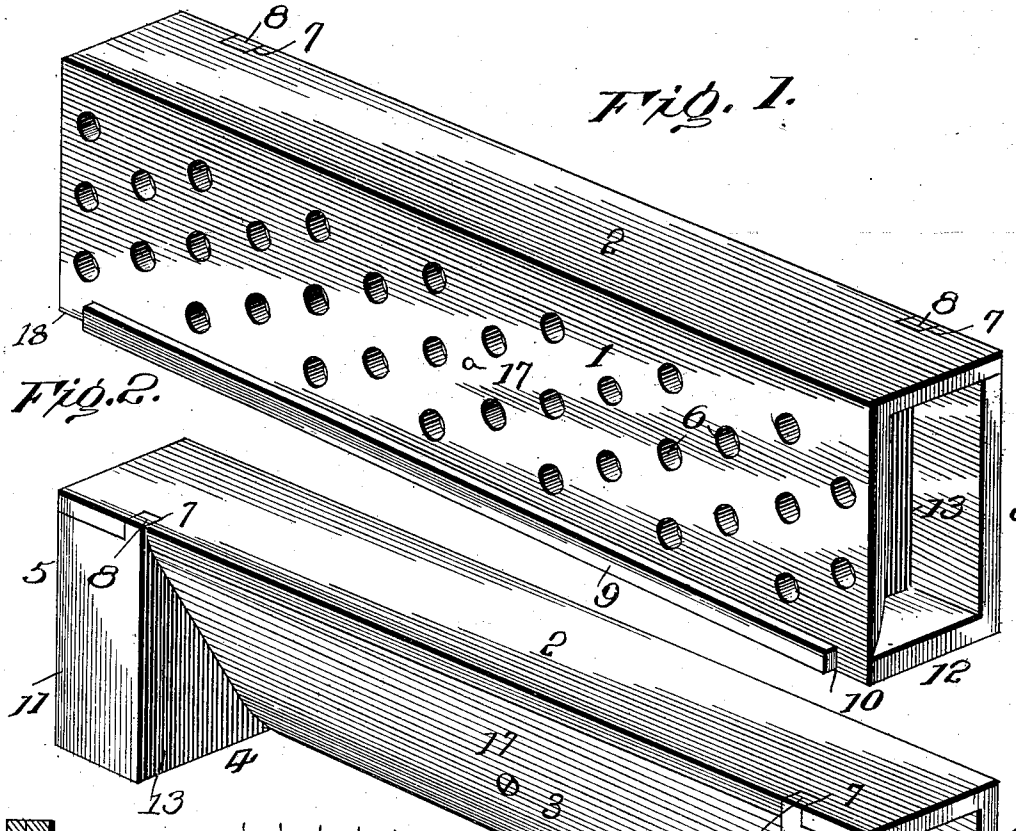


Fig. 2.

Fig. 4.

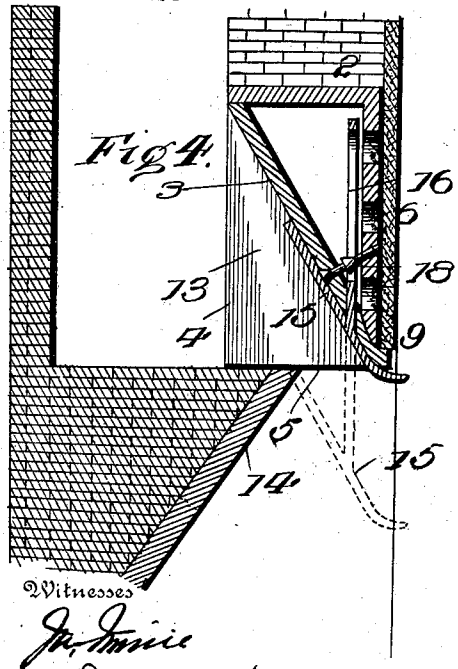
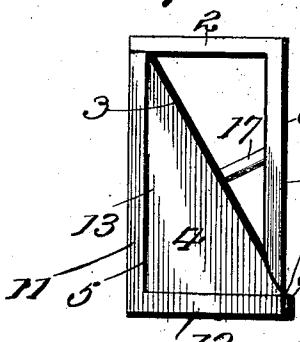


Fig. 3.



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UNITED STATES PATENT OFFICE.

WILLIAM H. PHENICE, OF CINCINNATI, OHIO.

CHIMNEY-THROAT BRIDGE-PIECE.

SPECIFICATION forming part of Letters Patent No. 650,050, dated May 22, 1900.

Application filed August 17, 1899. Serial No. 727,525. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. PHENICE, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Chimney-Throat Bridge-Pieces; 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.

This invention relates to bridge-pieces for chimney-throats and fireplaces, being particularly well adapted for open grate or fireplace heaters, as it obviates the eddying currents and all the disadvantages resulting from the thick bridge usually formed over chimney-throats; enables the back wall of the fireplace to be thrown well forward at its upper end, so as to throw the maximum amount of heat into the room and resulting in a saving of fuel as compared with like results of heaters placed in fireplaces of ordinary construction; insures better draft and obviates smoking, since no obstruction is offered to the escape of the smoke; prevents overheating of the portion of the chimney over the fire; provides a firm and substantial support for the brickwork; saves time and labor in forming the arch; provides a foundation for the plaster and a finish or "grounds" therefor; can be readily supplied with a damper, and is capable of use in connection with any chimney.

Other objects and advantages are contemplated and will appear in the course of the subjoined description.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result, reference is to be had to the following description and the drawings hereto attached.

While the essential and characteristic features of the invention are necessarily susceptible of modification, still the preferred embodiment of the invention is illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a bridge-piece constructed in accordance with and embodying the essence of the invention. Fig. 2 is a rear perspective view thereof. Fig. 3 is an end view. Fig. 4 is a cross-section of the bridge-piece, showing its relation to the fireplace and illustrating a damper combined therewith, said damper being shown in two positions by the full and dotted lines.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The bridge-piece is hollow and preferably constructed of metal and is of suitable length, height, and depth. Inasmuch as the bridge-piece spans the space formed between the jambs and forms a foundation for the front wall of the chimney it will by preference be of a height corresponding to any desired number of courses of brick, usually three.

The depth or width of the bridge-piece corresponds to the width of a brick, which is about four and one-half inches.

The device may be constructed of a single piece of metal shaped into the required form or may be composed of two parts, the latter construction being preferred, as it admits of the parts being cast and obviates coring.

The bridge-piece comprises a front wall 1, top wall 2, and a back wall 3, the latter having its end portions offset, as shown at 4, forming, with the end portions of the front and top walls, box-terminals 5, which are adapted to be built into the jambs of the chimney. The front wall 1 is foraminous or provided with a series of openings or perforations 6, through which the plaster is forced when covering the bridge-piece, the portions of the plastering passing through the openings forming keys to retain the surface coat in position. The lower edge portion of the wall 1 is beveled forwardly and downwardly in conformity to the inclination of the back wall 3, so as to obtain a close fit thereagainst. The top wall 2 is formed with or secured to the front wall and is of a width corresponding to the depth or thickness of the bridge-piece. Notches 7 are formed in the rear edges of the top wall near its ends and are adapted to receive projections 8 of the back wall 3, whereby the parts are held from displacement when secured together. The back wall 3 inclines from the rear edge of the top wall 2 to the lower edge of the front wall 1 and is provided at its lower edge with a forwardly-extending ledge 9 to constitute a finish and grounds for the plastering. The ledge

9 extends forward of the plane of the front wall 1 a distance corresponding to the thickness of the plastering. The terminal portions of the ledge 9 are cut away, as shown at 10, flush with the surface of the front wall 1 to admit of a neat finish being secured when plastering. The offset terminal portions 4 at the ends of the back wall comprise vertical walls 11, horizontal walls 12, and transverse walls 13, the latter being of triangular form and joining the vertical and horizontal walls with the terminals of the inclined portion of the back wall. The projections 8 are in line with the transverse walls 13. The back wall proper is the inclined portion extending from one terminal offset 4 to the other, and its lower edge terminates sharply, so as to obviate the formation of a straight surface which would be liable to interfere with the free circulation of draft through the throat.

The numeral 14 of Fig. 4 indicates the relative position of the back wall of the fireplace, the same inclining upwardly and forwardly. It will thus be seen that the upper edge of the back wall 14 approaches to within a very short distance of the lower edge of the bridge-piece, thereby throwing practically all the heat into the room, a small percentage only escaping. If desired, a damper may be combined with the bridge-piece, and, as shown, this damper 15 is adapted to fold close against the inclined back wall 3 and is adjustable to vary the opening or space between the back wall 14 and the lower edge of the bridge-piece. This damper is provided with a slotted stem 16, which is adapted to be confined between the front wall and the means employed for connecting the parts comprising the bridge-piece. The parts of the bridge when assembled are connected by a bolt or like fastening 17, and the latter has a shoulder or nut 18 disposed adjacent to the inner side of the front wall, so as to clamp the stem 16 between it and said front wall.

Having thus described the invention, what is claimed as new is—

1. A bridge-piece for the purposes described, comprising a front wall, a top wall and a back wall, the latter inclining from the rear edge of the top wall to the lower edge of the front wall and terminating in a forwardly-extending ledge to provide a finish or grounds for the plastering, substantially as set forth.

2. A bridge-piece for the purposes described, comprising a perforated front wall, a top wall and an inclined back wall, and a ledge projecting forwardly from the lower edge portion of the front wall and having its terminals cut away, substantially as described.

3. The herein-described bridge-piece comprising a perforated front wall, a top wall having notches in its rear edge, a back wall inclining from the rear edge of the top wall to the lower edge of the front wall and formed with a forwardly-extending ledge having its terminals cut away, said back wall provided with offset terminal portions forming with the end portions of the front and top walls box-like structures and said back wall having projections to enter the notches of the top wall, and means for connecting the front and back walls, substantially as described.

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

WILLIAM H. PHENICE. [L. S.]

Witnesses:

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