

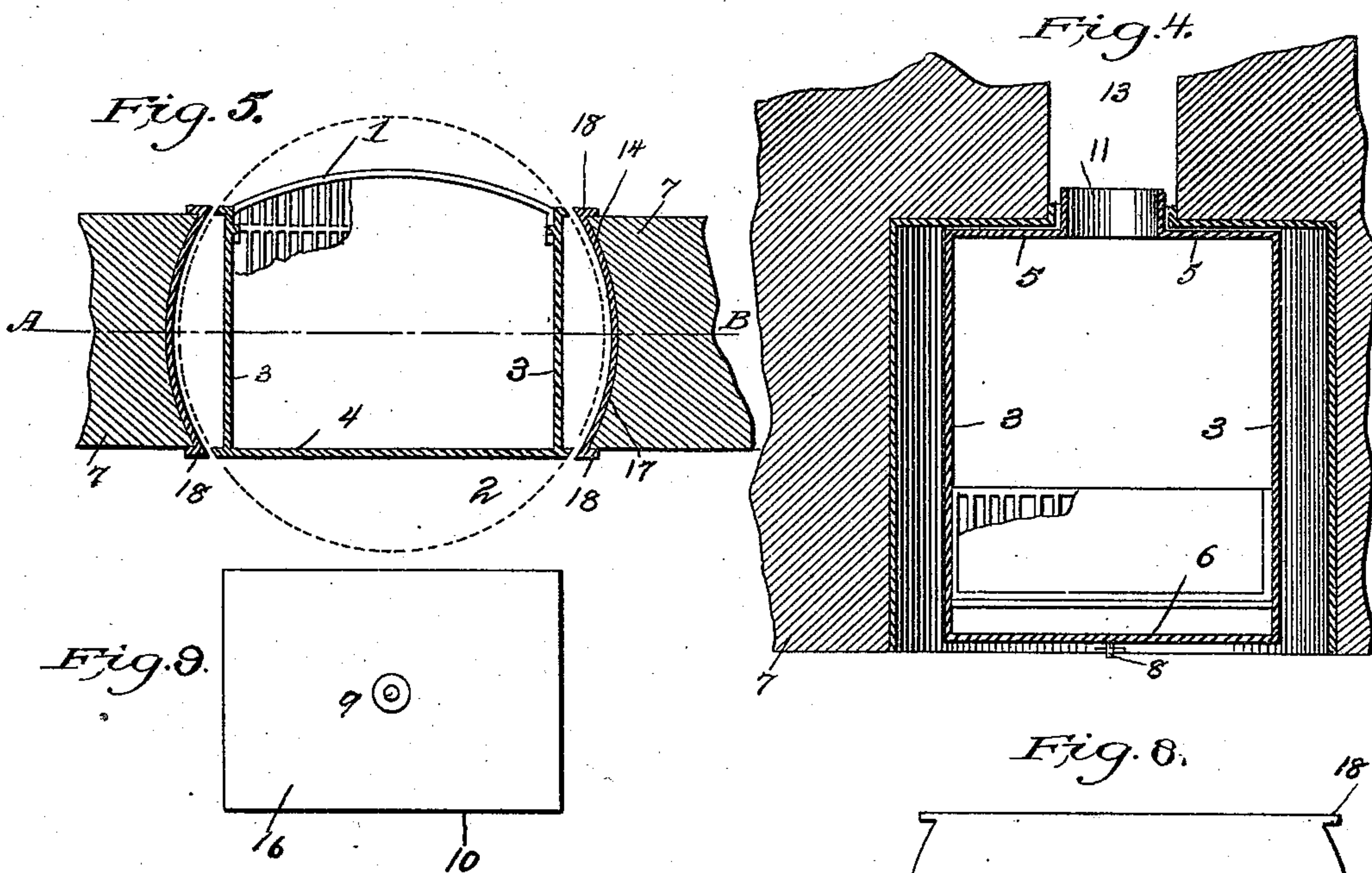
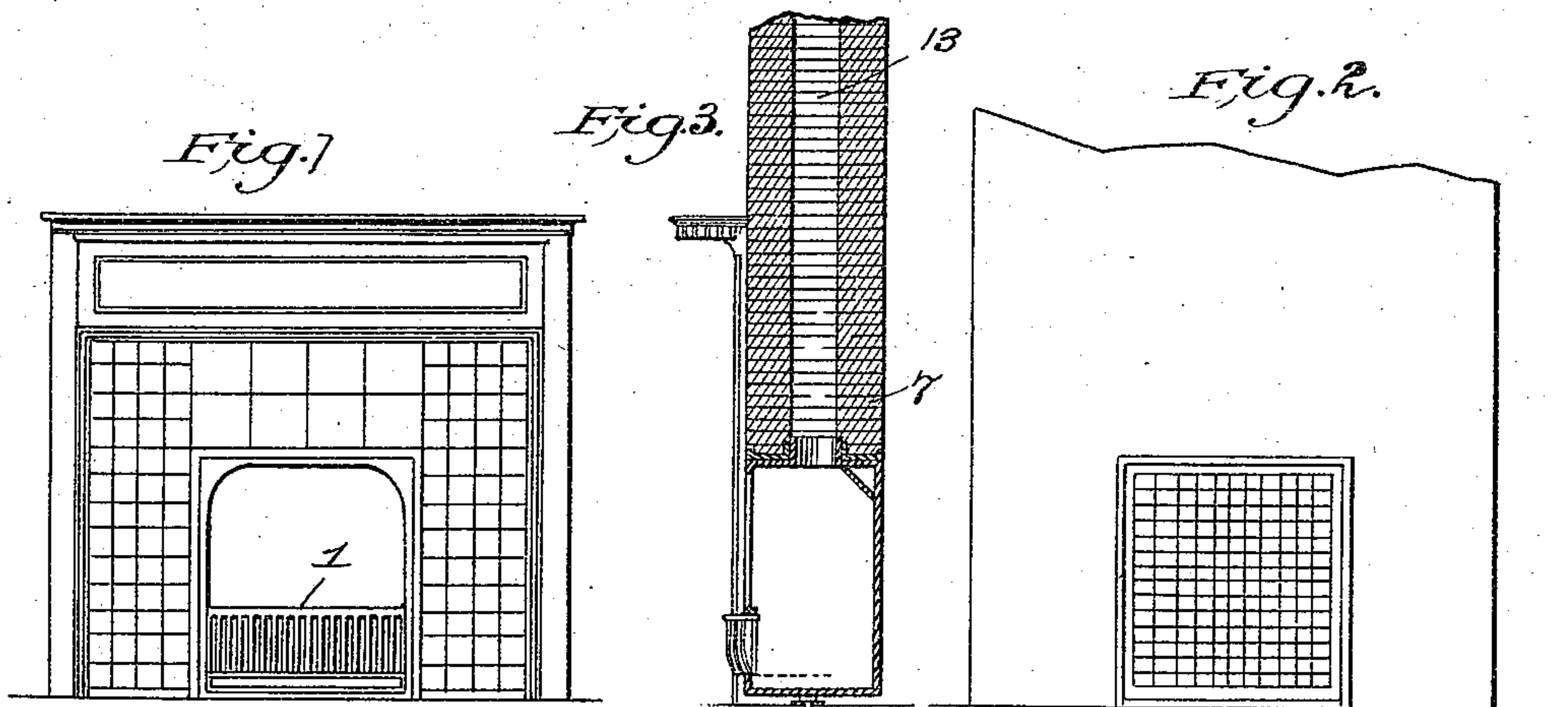
(No Model.)

2 Sheets—Sheet 1.

J. C. BIRKHEAD.  
FIRE GRATE.

No. 551,711.

Patented Dec. 17, 1895.



Witnesses.  
W. E. Purves  
W. L. White

Fig. 7.  
Inventor.  
James C. Birkhead

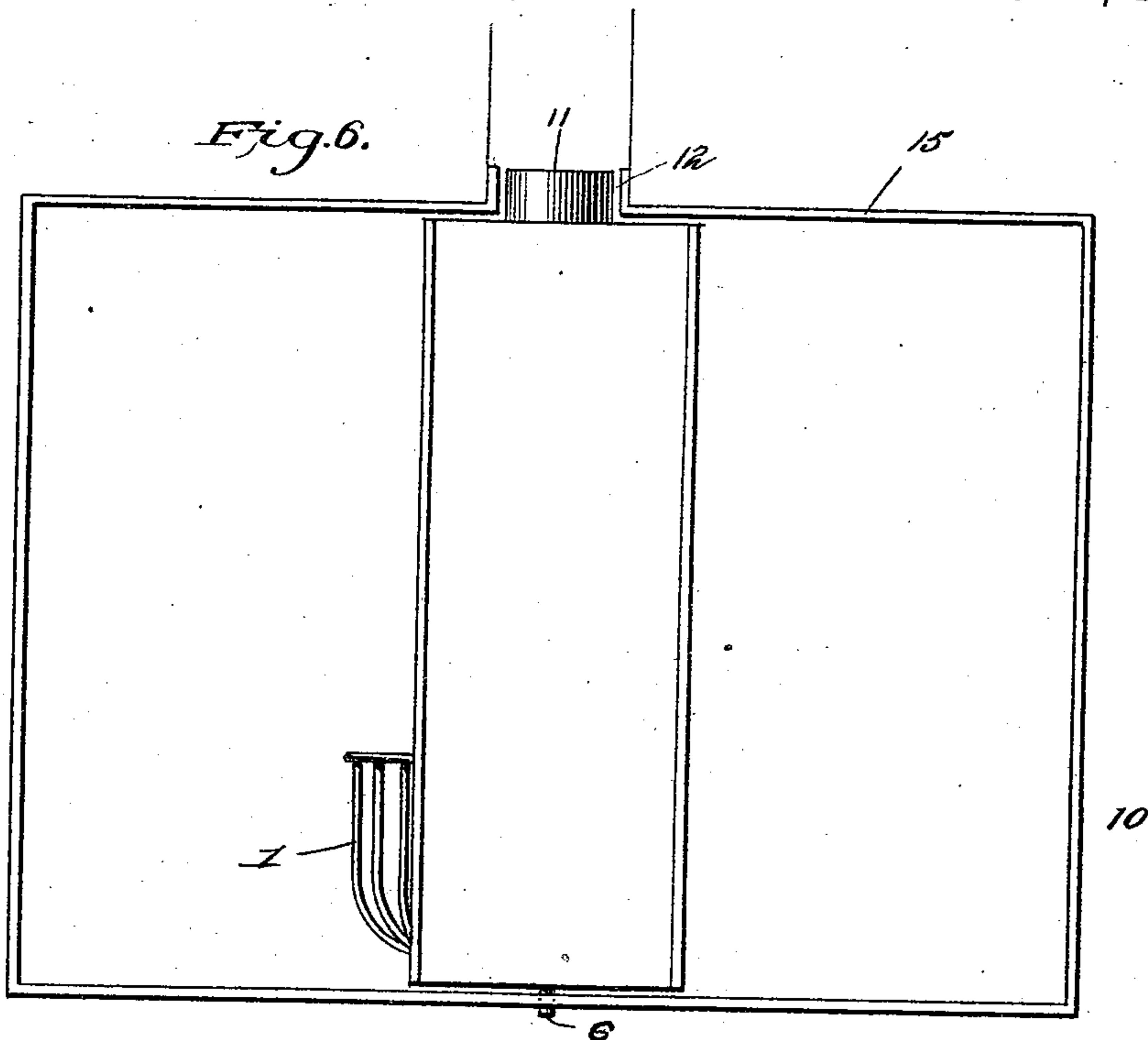
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2 Sheets—Sheet 2.

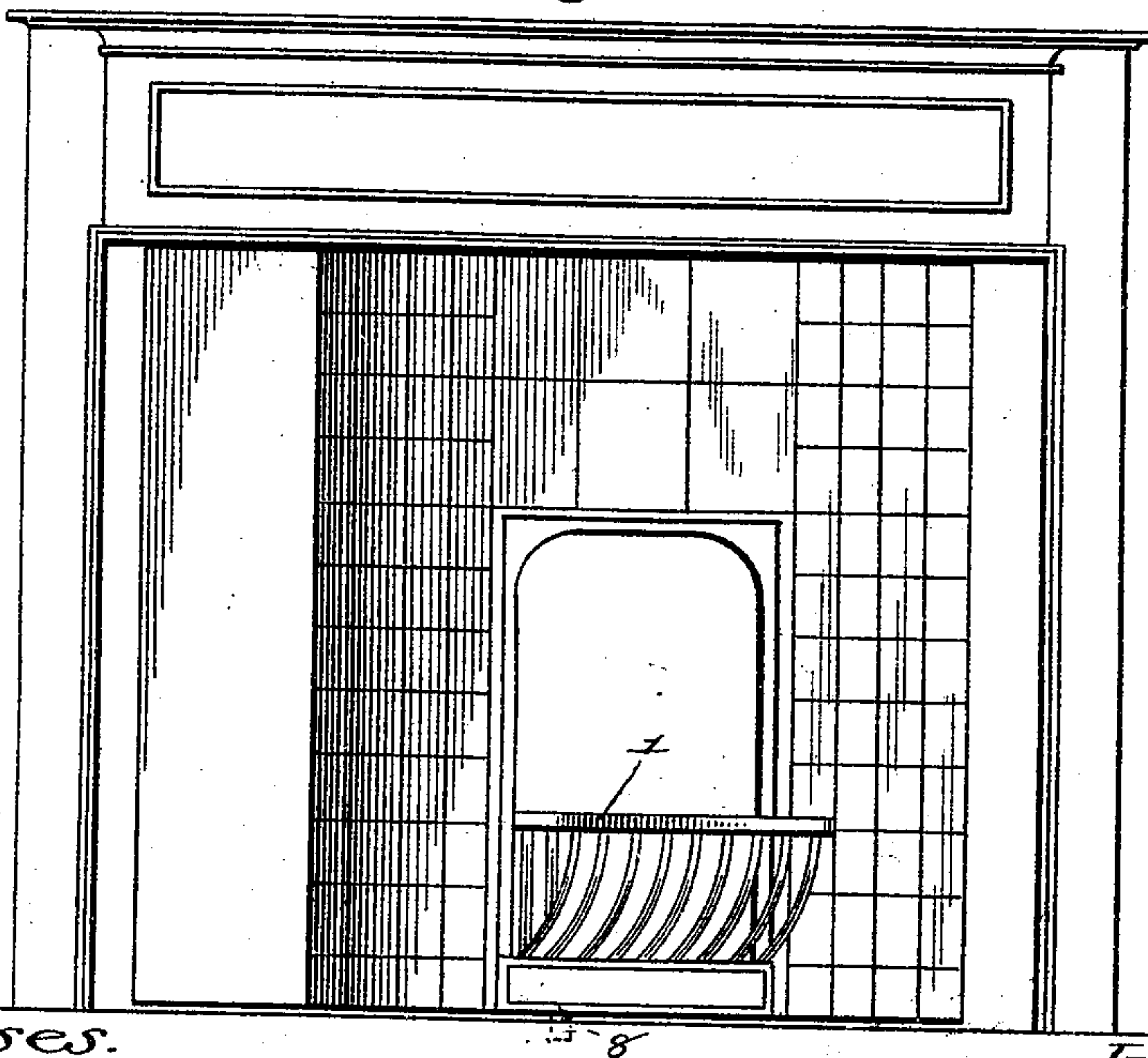
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*Fig. 7.*



Witnesses.

W. D. Upree  
W. J. White

Inventor.

J. C. Birkhead



# UNITED STATES PATENT OFFICE.

JAMES C. BIRKHEAD, OF WACO, TEXAS.

## FIRE-GRATE.

SPECIFICATION forming part of Letters Patent No. 551,711, dated December 17, 1895.

Application filed March 17, 1894. Serial No. 504,059. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES C. BIRKHEAD, a citizen of the United States, residing at Waco, in McLennan county, State of Texas, have invented a new and useful Fire-Grate, of which the following is a specification.

The invention relates to improvements in fire-grates.

The object of the present invention is to provide a simple and efficient grate designed to be set in a wall between two rooms and capable of being reversed to enable either room to be directly heated by a fire.

The invention consists of the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claim hereto appended.

In the drawings, Figure 1 is a front elevation of the grate constructed in accordance with this invention. Fig. 2 is a rear elevation of the same. Fig. 3 is a central vertical sectional view taken transversely of the grate. Fig. 4 is a similar view taken longitudinally of the grate. Fig. 5 is a horizontal sectional view. Fig. 6 is an enlarged side elevation of the grate. Fig. 7 is an enlarged front elevation of the same, the grate being partially turned. Figs. 8 and 9 are detail views illustrating the manner of mounting the grate.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates an open grate mounted in a substantially-rectangular casing 2, open at the front and forming a fire-pot and ash-receptacle, and consisting of vertical sides 3, a vertical back 4, a top 5, the bottom 6. The sides 3 are as wide as the thickness of the wall 7, in which the grate is mounted. The back 4 is arranged substantially flush with one of the faces of the wall and the front of the grate proper is bowed outward and bulges slightly from the wall.

The bottom 6 of the casing is provided with a centrally-arranged depending pivot 8, which is stepped in the corresponding socket 9 of a supporting frame or lining 10, and the top 5 of the casing is provided with a central opening and has an integral upwardly-extending collar, pipe or flange 11, forming a smoke-flue, and journaled in a corresponding opening 12 of the supporting frame or lining 10 and communicating with a flue or chimney opening 13.

The supporting frame or lining is substantially rectangular and is composed of vertical sides 14, a horizontal top 15, and a similar bottom 16. The sides 14 are transversely curved, with their concave faces inward, and the sides 14 present outer convex faces and fit in corresponding recesses or concave faces 17 of the wall and are provided with laterally-disposed upwardly-extending flanges 18, embracing the outer faces of the wall at opposite sides of the stove or grate opening.

The casing, which carries and supports the grate proper, is capable of rotation to turn the grate to either face of the dividing-wall of the two rooms, so as to carry the fire into either room, and after one room has been properly heated the grate may be rotated for heating the other room. As the casing is constructed of metal, it will distribute the heat simultaneously to both rooms, as will be readily apparent.

It will be seen that the grate is exceedingly simple and inexpensive in construction, that it is adapted to be readily mounted in a wall between two rooms, and that it is capable of being readily rotated to carry the fire into either room.

Changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

What I claim is—

The combination of a substantially rectangular frame or lining, comprising a horizontal top having a circular opening at its center, a horizontal bottom and vertical sides transversely curved and presenting an inner concave face and an outer convex face and adapted to fit in a corresponding opening in a wall or partition, said sides being provided at their outer edges with vertical flanges arranged to embrace the outer faces of the wall or partition, and the substantially rectangular stove casing arranged within the frame or lining and carrying a grate and pivotally mounted on the bottom of the frame or lining and provided at its top with an upwardly extending collar or pipe, journaled in the said circular opening, substantially as and for the purpose described.

JAMES C. BIRKHEAD.

Witnesses:

W. E. DUPREE,  
W. L. WHITE.