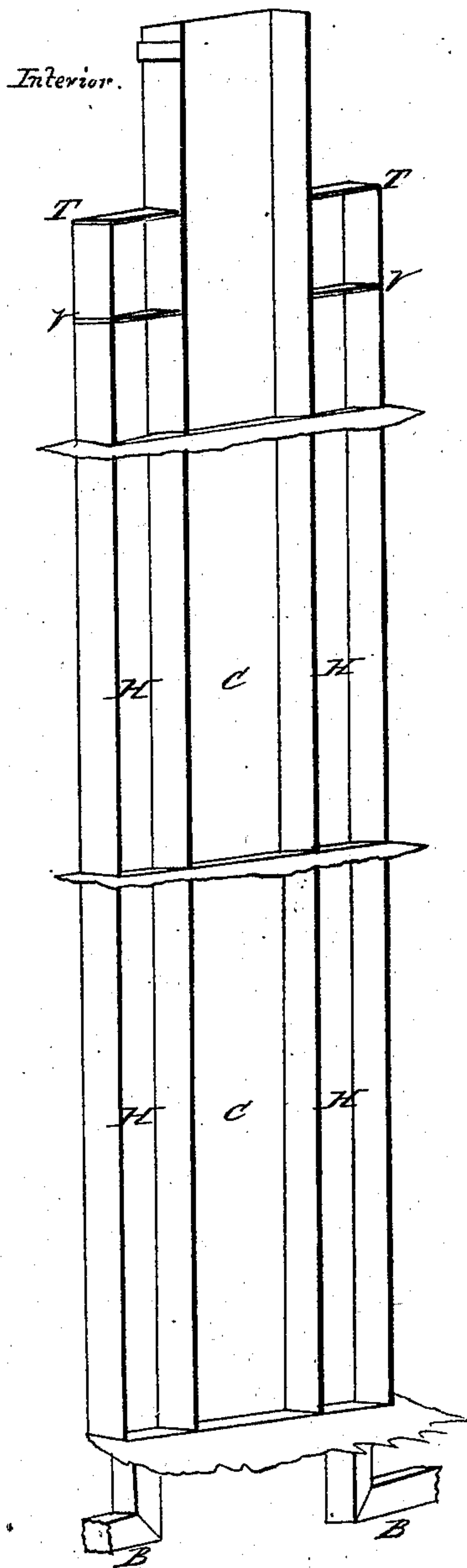
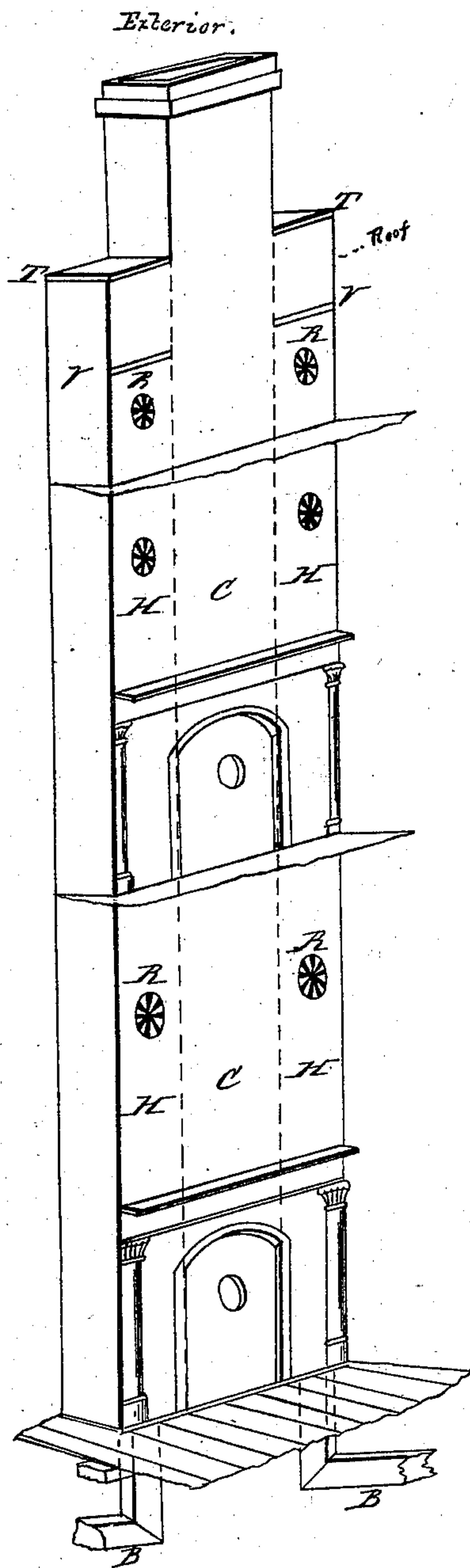


J. F. FRYE.
VENTILATOR.

No. 80,719.

Patented Aug. 4, 1868.



Witnesses.
Alfred J. Shepard
W. H. Loughlin

Inventor.
John A. Frye.

United States Patent Office.

JOHN F. FRYE, OF LOWELL, MASSACHUSETTS.

Letters Patent No. 80,719, dated August 4, 1868.

IMPROVEMENT IN VENTILATORS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, JOHN F. FRYE, of Lowell, in the county of Middlesex, and Commonwealth of Massachusetts, have invented a new and improved method of saving and conducting the heat which generally passes off through the chimney from any stove, furnace, or other heating-apparatus, and of ventilating apartments during the summer-season; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in the combination of a radiating chimney, made of cast iron or other metallic substance, with an adjoining air-box, chamber, or heat-conductor, in which the air, (admitted cold, or already warmed by other means,) is heated by the chimney, and conveyed to rooms above that in which the fire is built; said box or conductor being completely closed at the top, but by such valves, that it may easily be made an effectual ventilator in the warm season.

It may be constructed as follows, to wit: Build a metallic chimney, C, in any approved form, and at the sides thereof erect contiguous and parallel flues, as hot-air conductors, H H, having registers R R, opening into each room through which the chimney passes; and a tube or box, B, for the admission of air below the lower floor, a movable valve, V, at a short distance below the external top, and a tight cover, T, just above the roof of the house, which can be removed in the warm season.

In order that this may work to the greatest advantage, the front of the chimney and of the heat-conductor should be exposed, uncovered in the room through the whole height, and may be bronzed or gilded in ornamental style.

In the winter, or when a fire is used, the covers at the top, T and V, are both closed, and the tube B at the bottom is opened.

In the warm season, the valve is open at the top, and the cover T is raised in an inclined position, to turn the water from the ventilator, while it is open for the escape of air.

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

The combination of a metallic chimney with an adjoining heat-conducting tube or box, in which the air is heated by the chimney, and conveyed to rooms above the level of the fire, said tube or box being controlled by valves at both ends, so that it may be used as a ventilator in the warm season.

Witnesses:

WILLIAM H. LOUGHLIN,
ALBY S. SHEPARD.

JOHN F. FRYE.