

(No Model.)

J. McDONOUGH.  
VENTILATOR FOR BUILDINGS.

No. 256,021.

Patented Apr. 4, 1882.

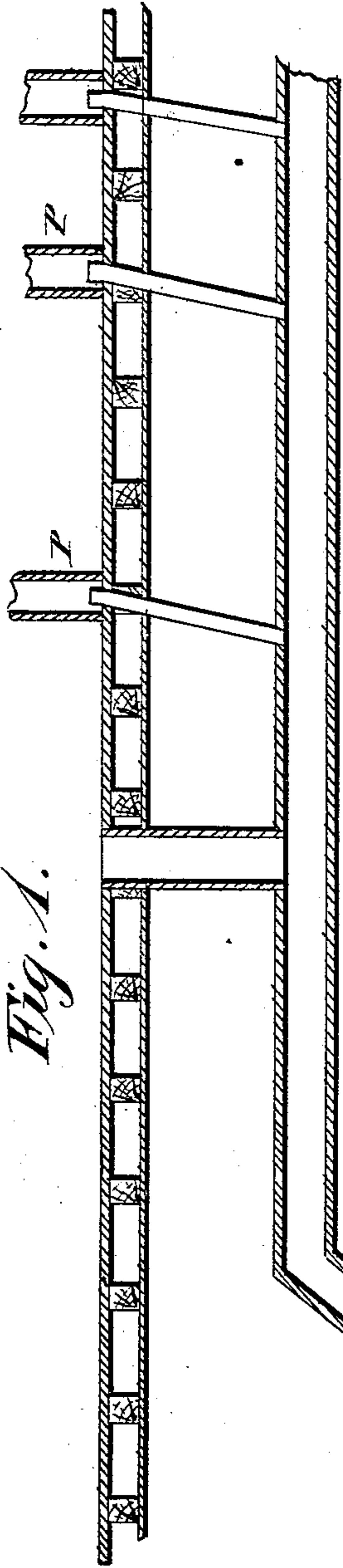


Fig. 1.

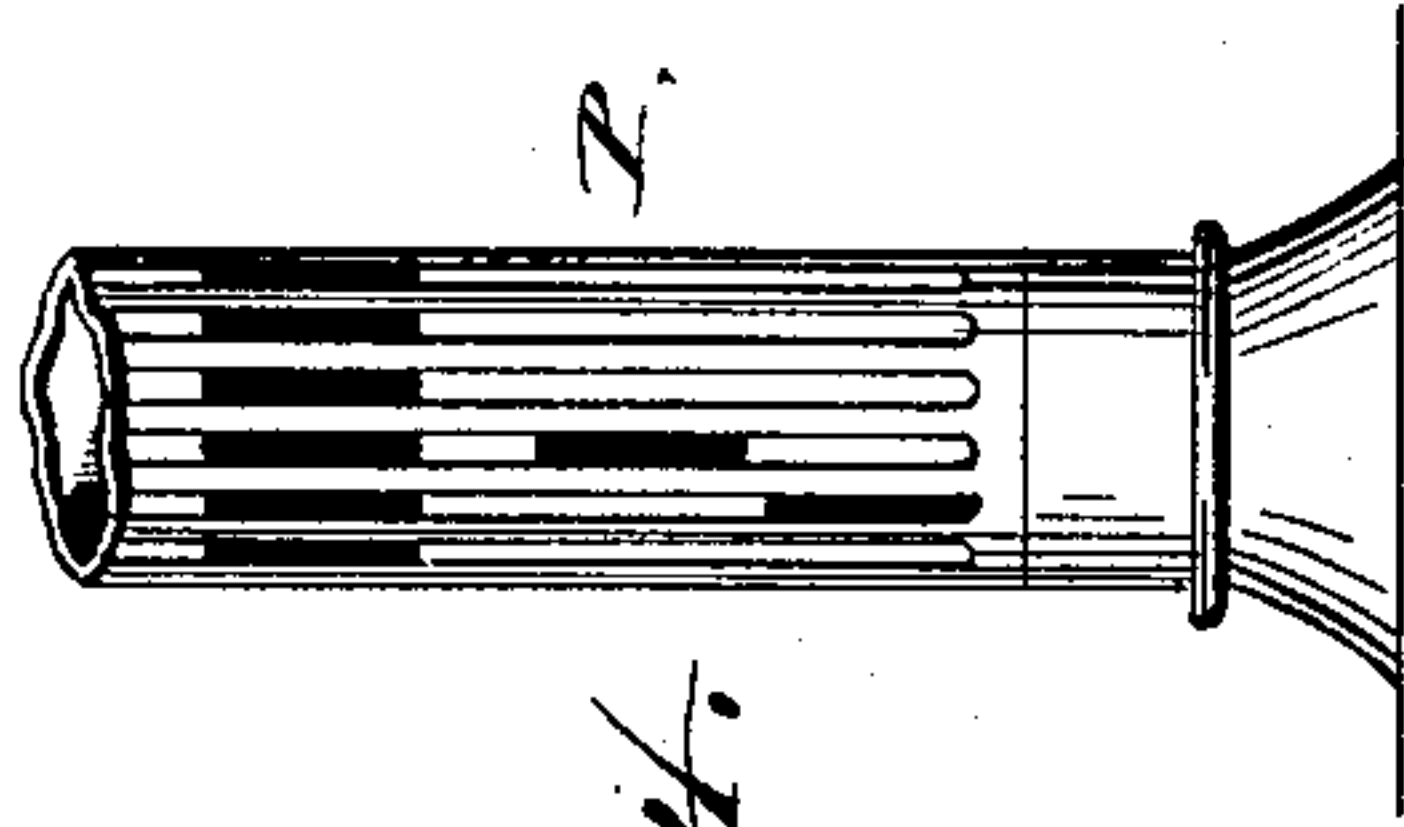


Fig. 4.

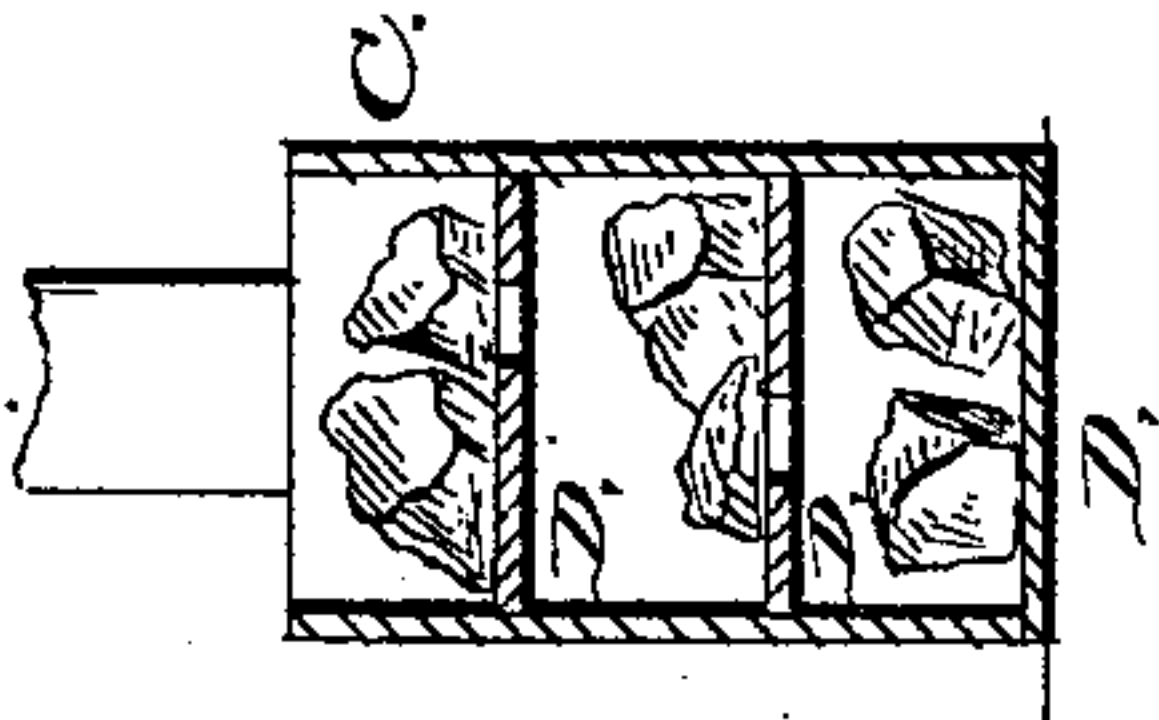


Fig. 3.

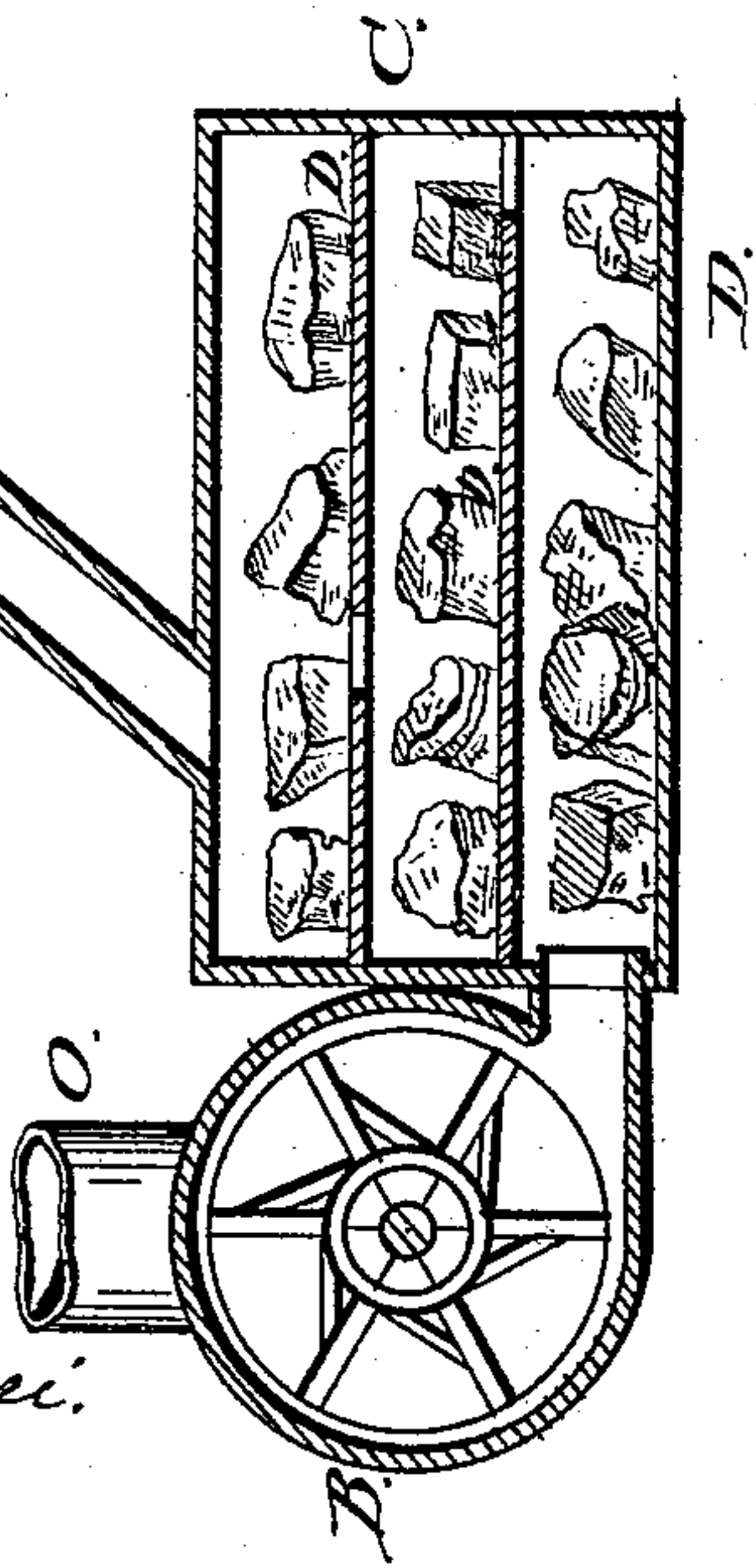


Fig. 2.

Witnesses:  
Philip L. Mason.  
John A. Ellis.

Inventor.  
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# UNITED STATES PATENT OFFICE.

JOHN McDONOUGH, OF PHILADELPHIA, PENNSYLVANIA.

## VENTILATOR FOR BUILDINGS.

SPECIFICATION forming part of Letters Patent No. 256,021, dated April 4, 1882.

Application filed October 25, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN McDONOUGH, a citizen of the United States, resident of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and valuable Improvement in Ventilators for Buildings; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a vertical longitudinal section of my invention. Fig. 2 is a plan view. Fig. 3 is a cross-section of the ice-chamber, and Fig. 4 is a detail view of one of the columns.

This invention has relation to ventilators for buildings; and it consists in the novel construction and arrangement of parts, as will be hereinafter fully described, and particularly pointed out in the claim.

The object of the invention is to cool large buildings where audiences assemble during the hot summer weather by forcing cooled air into the room at various points.

The invention is especially adapted to theaters, and the cooled air is forced by a fan through a main pipe and distributing-pipes to the columns which support the galleries and beneath the seats in the various floors.

In order to operate the fan and force the air through the main pipe and the distributing-pipes, an engine is employed, which may be of any ordinary construction.

Referring by letter to the accompanying drawings, A designates the engine; B, the rotary fan for forcing the air through the cooling chamber and pipes; and C, the cooling-chamber, having three or more shelves, D, on which the ice is placed, and which are arranged to form a tortuous passage through the ice-chamber C, in order that the air may be thoroughly cooled

in its passage over the ice before being passed into the room. The arrangement of the distributing-pipes will necessarily have to be made to conform to the columns and seats in the building in which they are employed.

In winter the cooling-chamber may be replaced by a furnace, and heated air may be forced through the distributing-pipes to warm the building.

When used as a cooler the air is preferably taken from the roof of the building through a flue, O. The columns P are hollow and slotted to permit the cold air to escape from the pipes into the room.

Vaults beneath the pavements in front of stores, &c., have been connected by tubes with hollow lamp-posts at the edge of the pavement, and also with the flues of the building; but neither the lamp-posts nor the flues have been slotted to admit the cooled air to the room. Both cooled and heated air have been conveyed by pipes to registers located in the floor, and admitted to the room, and a subterranean cooling-tank, fan, and pipes have been employed to introduce cooled or heated air to buildings, and neither of these constructions are claimed herein, broadly.

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

In a ventilating apparatus for buildings, the combination, with the forcing apparatus, the main pipe, and the distributing-pipes, of the hollow slotted columns located within the room to be cooled, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JOHN McDONOUGH.

Witnesses:

Dr. JAMES G. WALKER,  
GEORGE W. SELTZER.