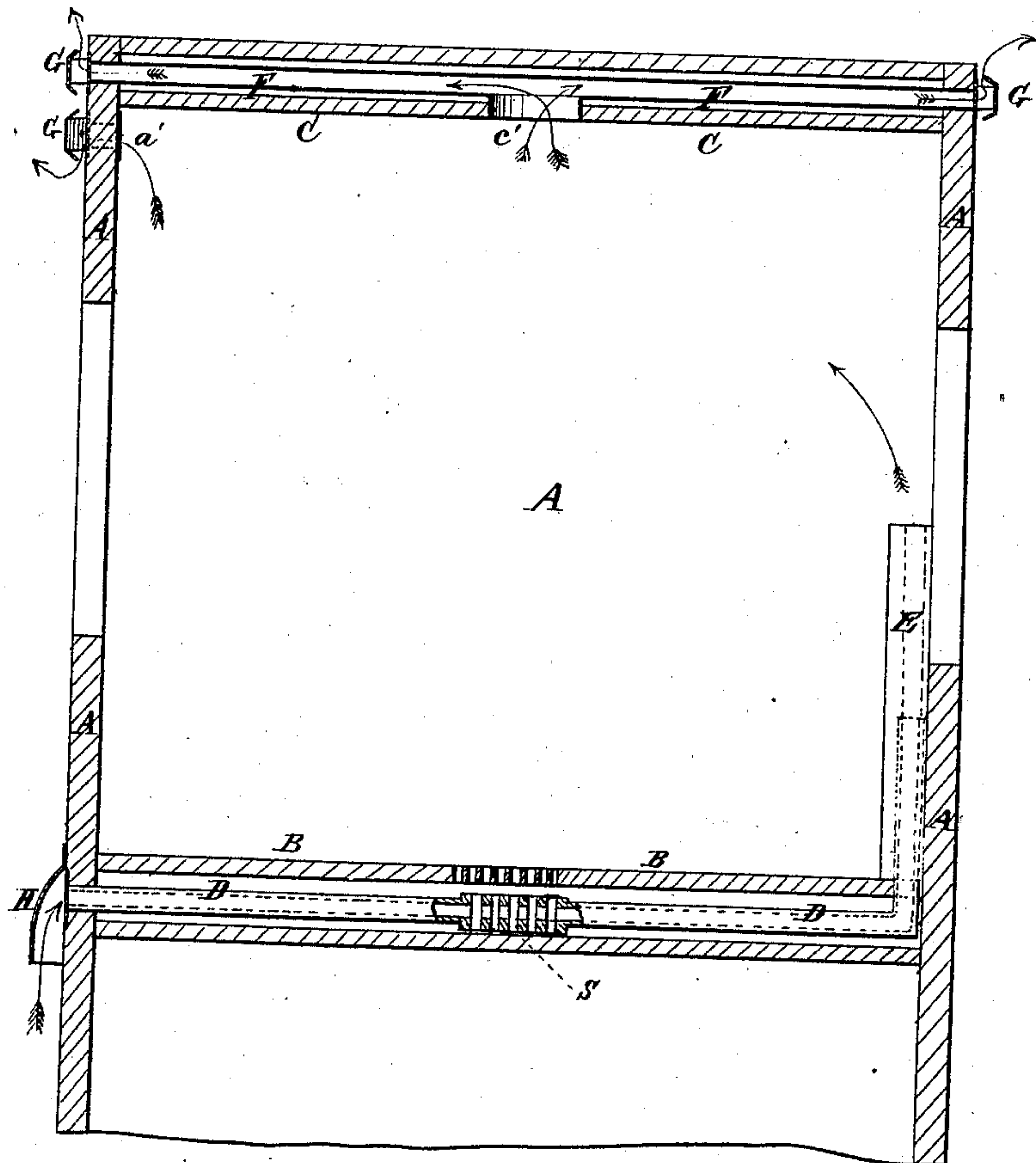


J. C. BATES.
Ventilating-Apparatus.

No. 168.864.

Patented Oct. 19, 1875.



WITNESSES:

A. W. Almqvist
A. F. Terry

INVENTOR:

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UNITED STATES PATENT OFFICE.

JOHN C. BATES, OF COLD SPRING, NEW YORK.

IMPROVEMENT IN VENTILATING APPARATUS.

Specification forming part of Letters Patent No. **168,864**, dated October 19, 1875; application filed June 5, 1875.

CASE A.

To all whom it may concern:

Be it known that I, JOHN C. BATES, of Cold Spring, in the county of Putnam and State of New York, have invented a new and useful Improvement in Ventilating Apparatus, of which the following is a specification:

The figure is a vertical section of a room to which my improved ventilating apparatus has been applied.

The object of this invention is to furnish an improved apparatus for ventilating rooms by introducing any desired amount of fresh air in such a way as not to produce a draft, and by which the foul air may be expelled from the room, thus causing a circulation and keeping the room thoroughly ventilated.

The invention consists in a horizontal pipe communicating with the outer air, and having a drum pierced with flues interposed between the register and the hot-air flue, the said inlet-pipe being combined and communicating with a vertical pipe, which delivers the air into the room in a vertical column far enough above the heads of the occupants to relieve them from the bad effects of a draft.

A represents the walls, B the floor, and C the ceiling, of a room. D are pipes leading in through openings in the walls of the building, and which may pass beneath the floor B of the room or not, as may be convenient, and open into pipes E, extending up along or within the wall of the room to such a height as will prevent the air from said pipes from blowing upon the occupants of the room, and thus exposing them to a draft. When the pipes E are within the wall of a room their upper part should pass into the room and up a little way along the surface of said wall vertically, the part of said pipes within the room being covered with an ornamental bracket. As the air is conducted to the room through pipe D it passes through a drum, S, which is pierced

with flues and interposed between the register and the hot-air flue, so as to allow the passage of heated air therethrough. The object of the drum is to heat the fresh air as it is introduced and before it is admitted to the room. In the ceiling of the room is formed an opening, *c'*, leading into a drum or pipes, F, placed above the ceiling, which opening may be covered with an open-work ornament to hide it. The pipes F lead out through openings in the walls of the building. Openings *a'* may also be formed in the walls A of the room at any desired height, for the escape of foul air. The exit-openings in the walls of the building are all covered upon the outside of the walls by plates or hoods G, the edges of which incline inward, as shown in the figure, to prevent the entrance of cold air, while allowing the foul air to escape freely. The inlet-openings of the pipes E and the outlet-openings for the foul air may be provided with valves, to enable the amount of air passing in and out to be regulated as required; or the said opening may be covered with wire-gauze or other finely-perforated material. The latter construction will render the ventilator automatic in its operation. The inlet-opening for the pipes D should be protected by a hood, H, and should also be covered with wire-gauze to keep out the dust.

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

The inlet-pipe D, having a drum, S, pierced with flues, and located between the register and the hot-air flue, in combination with the vertical pipe E, which delivers its air into the room vertically and above the heads of the occupants, substantially as described.

JOHN C. BATES.

Witnesses:

M. H. R. STYLES,
CHAS. B. HARKNESS.