

G. R. BARKER.

Ventilators.

No. 135,507.

Patented Feb. 4, 1873.

Fig. 1.

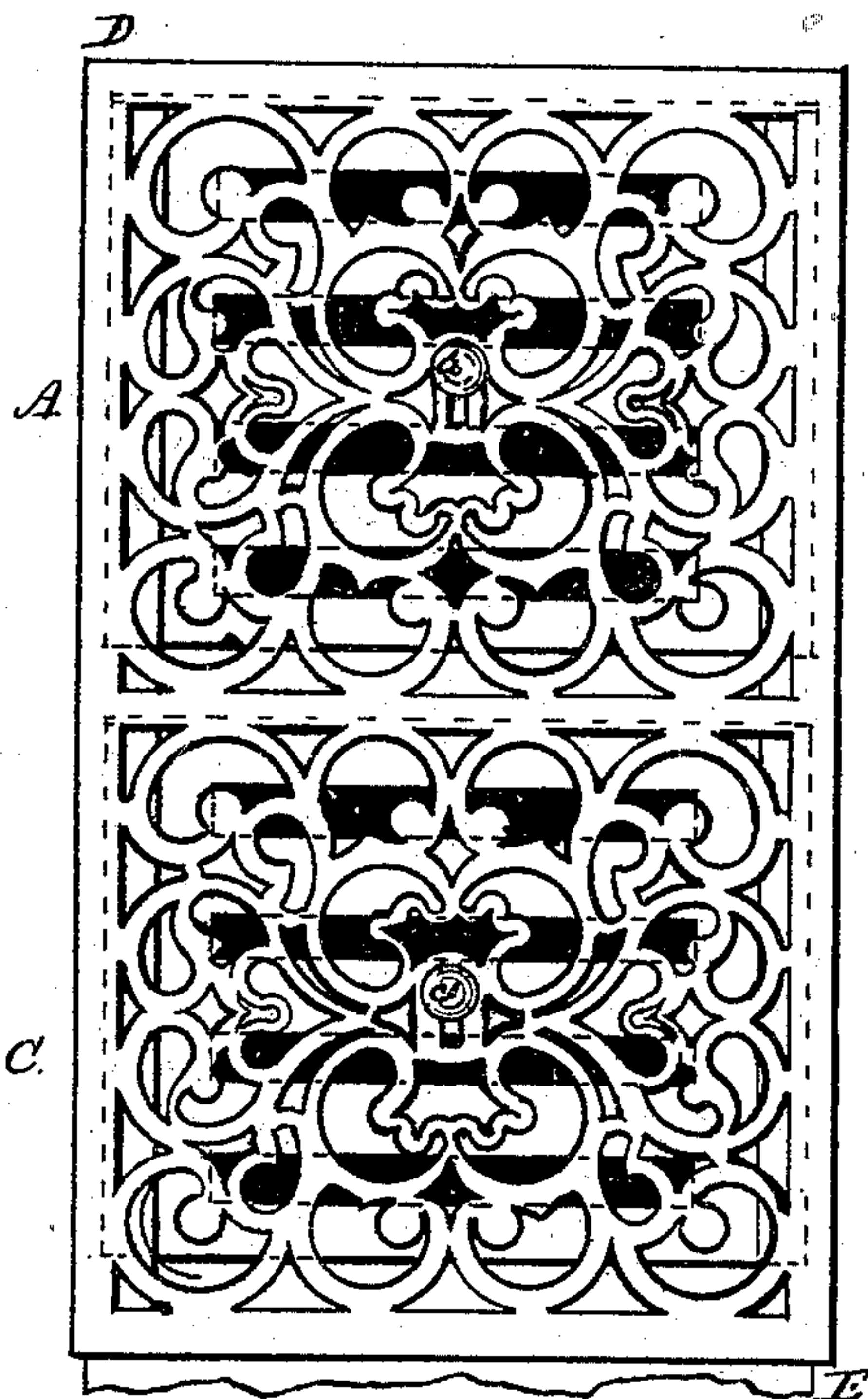
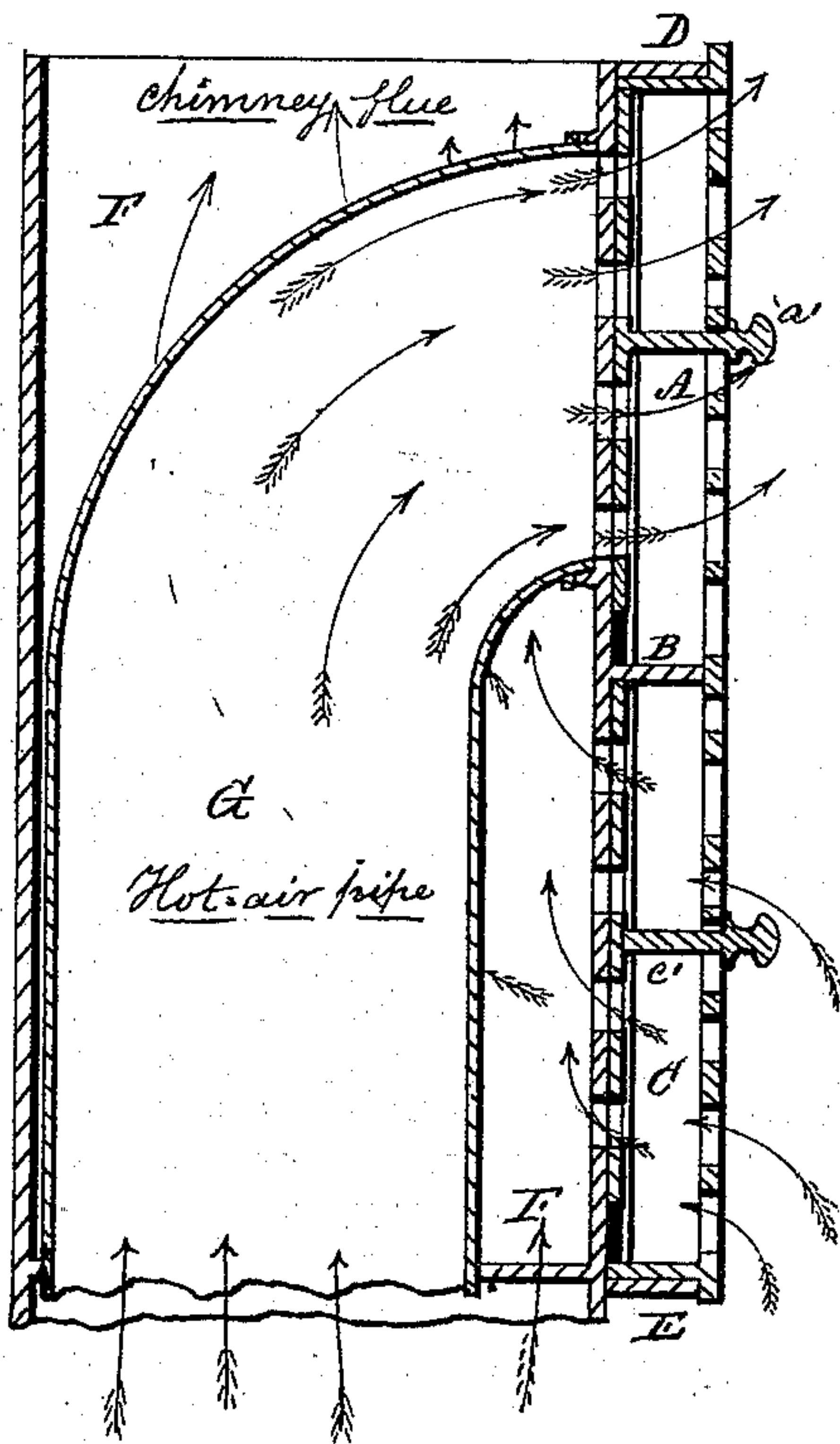


Fig. 2.



WITNESSES:

Benj. Morison

Wm. H. Morison

INVENTOR:

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UNITED STATES PATENT OFFICE.

GEORGE R. BARKER, OF GERMANTOWN, (PHILADELPHIA,) PENNSYLVANIA.

IMPROVEMENT IN VENTILATORS.

Specification forming part of Letters Patent No. 135,507, dated February 4, 1873.

To all whom it may concern:

Be it known that I, GEORGE R. BARKER, of Germantown, in the city of Philadelphia and State of Pennsylvania, have invented certain Improvements in Hot-Air Registers, of which the following is a specification:

My invention has special relation to the improvement in ventilators for which Letters Patent, No. 111,718, were granted to me, dated February 14, 1871, in which a single chimney-flue is made to serve the twofold purpose of conveying fresh hot air into the room of a building, and of conducting out the contaminated or heavy air through a separate register near the floor, the hot-air register being placed at a greater or less distance directly above the register for letting out the contaminated air; and my present invention consists in the combination, with the same chimney-flue, of both the hot-air register and the register for the contaminated or heavy air in one frame, provided with an inside transverse partition between the two series of the register air-valves, and a single covering-plate of the same, having ornamental perforations or openings, in the usual manner, for the passage of the air; the object of my invention being to render a single opening in the wall of the chimney-flue adequate to the two purposes, which heretofore required two such openings, and, consequently, two separated register apparatus.

Figure 1 is a front view of the register-plate embodying my invention. Fig. 2 is a central vertical section of the same.

A is the hot-air division, C the foul-air division, and B the partition-plate between the two said divisions of the frame D E, *a'* and *c'*

being, respectively, the arms and knobs for operating the valves of the two divisions A and C. F is the chimney, and G is the hot-air pipe opening through the upper division of D E. The hot-air portion A of the register-frame D E being immediately above the partition B, and the portion C for the contaminated air being immediately below the said partition, it will be readily understood that a pipe embracing by its upper end the whole area of the inner side of the hot-air portion A of the register, and extending down into close connection with the hot-air chamber of the furnace, will discharge hot fresh air into the room through A, and that the heat radiating from the said pipe will warm the chimney-flue, and cause a draft through C, which will carry the descending contaminated air of the room through it and upward through the said chimney-flue.

I claim as my invention—

1. In combination with one or the same chimney-flue F, the hot-air register A and the contaminated-air register C in one frame, D E, provided with a transverse partition, B, between the said two registers, substantially as and for the purposes hereinbefore set forth and described.

2. In a combined hot-air and contaminated-air register plate or frame, the arrangement of the fresh hot-air register A immediately above the contaminated-air register C, substantially as and for the purposes hereinbefore set forth and described.

GEORGE R. BARKER.

Witnesses:

BENJ. MORISON,
MICHAEL QUIRK.