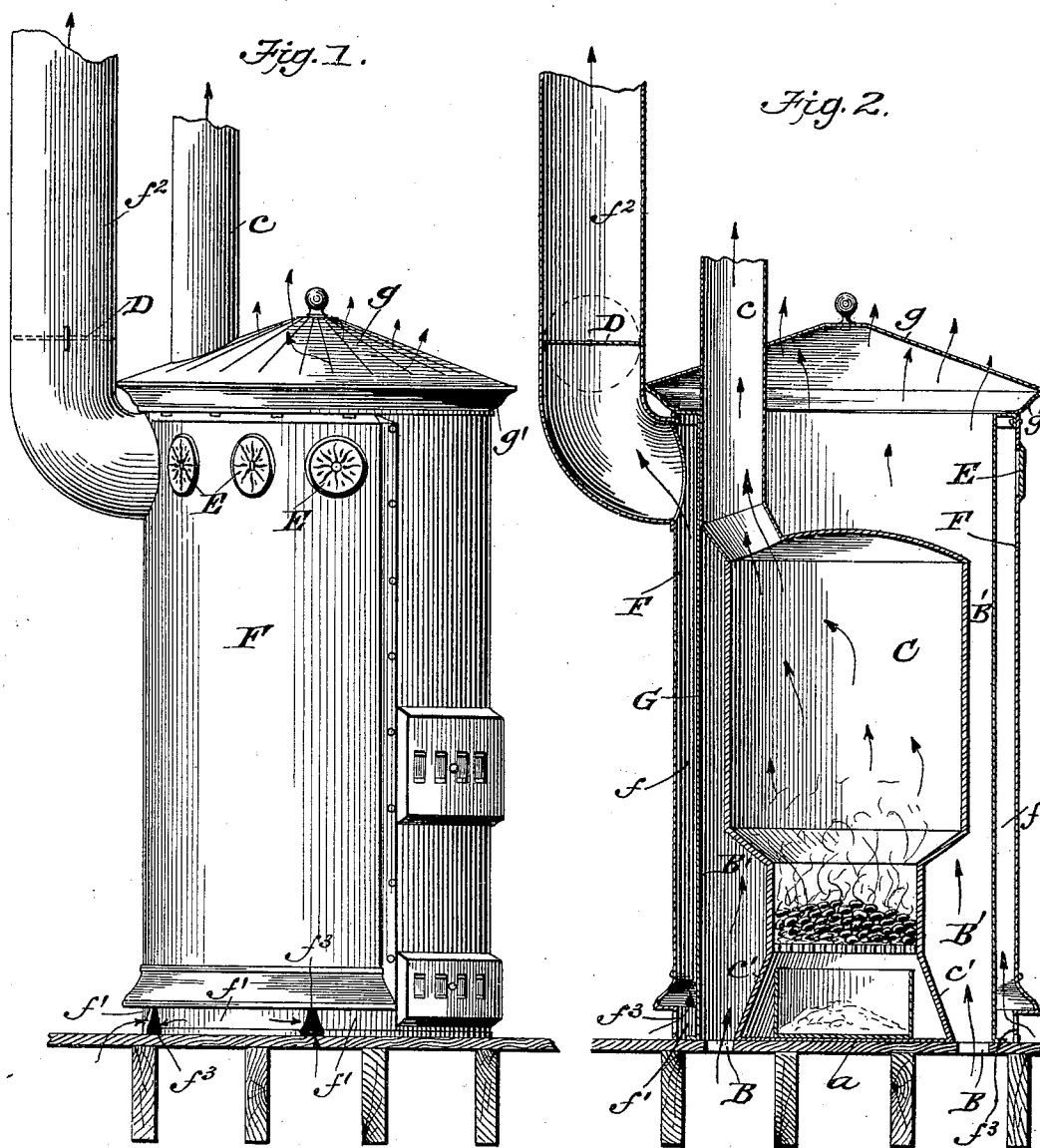


(No Model.)

W. L. WHITE.
HEATING AND VENTILATING APPARATUS.

No. 585,069.

Patented June 22, 1897.



WITNESSES:
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ATTORNEYS.

UNITED STATES PATENT OFFICE.

WILLIAM L. WHITE, OF PRINCETON, INDIANA, ASSIGNOR OF FIVE-EIGHTHS
TO GARRARD EMMERSON AND GEORGE W. NORMAN, OF SAME PLACE.

HEATING AND VENTILATING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 585,069, dated June 22, 1897.

Application filed July 13, 1896. Serial No. 599,062. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM L. WHITE, residing at Princeton, in the county of Gibson and State of Indiana, have invented a new and useful Improvement in Heaters and Ventilators, of which the following is a specification.

My invention is an improvement in that class of heaters and ventilators in which a jacket or casing surrounds a fire-box or furnace proper and is separated therefrom by a space into which fresh air is admitted to be heated before passing into living rooms or apartments.

In my invention the jacket or casing of the fire-box is constructed and supported independently of the latter, and an outer casing surrounds the inner one and is attached to its cornice and also supported at the base independently of it. Such outer casing is provided with a flue and base and top openings, whereby it forms a ventilating attachment, as hereinafter set forth.

In the accompanying drawings, Figure 1 is a side view of my invention. Fig. 2 is a vertical irregular section of the same.

The vertical fire-box C, Fig. 2, having a cylindrical body and a vertical smoke-flue *c*, is supported by a suitable base *c'* upon the floor or hearth *a*. The vertical casing G, surrounding said fire-box C, but separated from it by a narrow space, is provided with an enlarged conical head *g* and is supported upon the floor or hearth *a*, but independently of the fire-box, as shown. Said floor *a* has openings B at points between the casing G and fire-box base *c'* for the purpose of admitting fresh air, which, as shown by arrows, ascends in the annular space B' between the fire-box and casing and thus becomes heated to a comparatively high degree, in which condition it escapes through the apertured top *g* of the casing into the apartment in which the heater is placed.

The projecting edge or cornice of the casing-top *g* has a pendent lip or flange *g'*, and

to this and also to opposite sides of the inner casing G is bolted a vertical cylindrical outer casing F, which is parallel to the inner casing or body G of the heater, but separated from it by an annular space *f*. The said outer casing F is shorter than the inner one G and provided at its base with short legs *f'*, that rest on the floor *a*, thus leaving a space for entrance of foul air from the apartment.

The outer casing F is provided with a flue *f*², that conveys away the foul air. Said flue has a pivoted damper D, as shown, and the outer casing F has a series of registers E at its top on the front side.

It will be seen that as relates to operation by closing the damper D and opening the registers E the current of air admitted at *f*³, below the base of the outer casing F, may be directed back into the apartment, whereby heat may be economized or conserved when required, and, on the other hand, by opening damper D and closing registers E the more or less vitiated air may be drawn off. Again, if both the damper D and registers E be open at the same time air from a higher point will be drawn into the flue *f*² by a more direct course. Thus the apparatus may be used as a heater proper or ventilator proper, or both together, by the simple adjustment of two regulating devices D E.

As regards the features of construction, it will be seen that the heater proper, which is composed simply of the fire-box C and its casing G, may be used alone and the parts easily put together and set up or detached and removed, while the outer casing F, constituting an independent ventilating attachment, may be easily and quickly bolted in place or removed. The construction is such that no common base for the parts C G F is required or employed, and the casing F is secured to the heater proper by means of the pendent flange *g'*.

The whole forms a very simple and cheap yet efficient and ornamental apparatus for heating and ventilating.

What I claim is—

In a heater and ventilator, the combination
with a fire-box and its inclosing casing hav-
ing an enlarged overhanging top or cornice,
5 of the outer ventilating attachment composed
of a casing bolted to the pendent cornice-
flange, and supported independently at the
base, and also provided with a base air-inlet,

top inlet or register, and the air-escape flue
having a damper, as shown and described. 10

Witness my hand and seal this 8th day of
June, A. D. 1896.

WILLIAM L. WHITE. [L. S.]

Witnesses:

WM. H. WIEDING,
JOHN G. MADDEN.