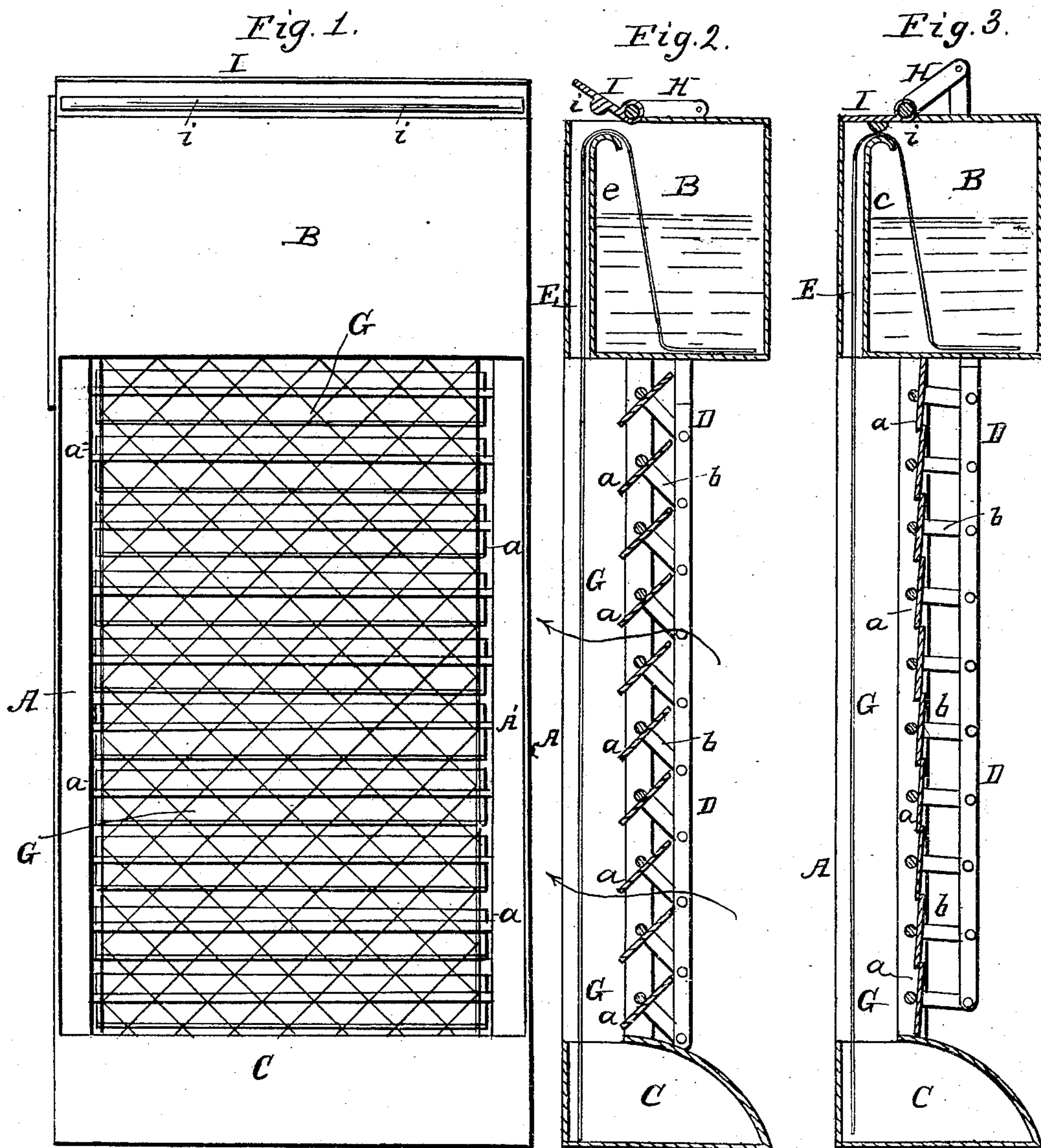


T. E. McNEILL.
Hot Air Register.

No. 27,461.

Patented March 13, 1860.



Witnesses:
Henry Howson
Horn Sec.

Inventor.
Thos. E. McNeill

UNITED STATES PATENT OFFICE.

THOMAS E. MCNEILL, OF PHILADELPHIA, PENNSYLVANIA.

HOT-AIR REGISTER.

Specification of Letters Patent No. 27,461, dated March 13, 1860.

To all whom it may concern:

Be it known that I, THOMAS E. MCNEILL, of the city and county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Hot-Air Registers; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing and to the letters of reference marked thereon.

My invention consists in combining a net work, or its equivalent, of fibrous or other material capable of absorbing moisture, and a reservoir for water with a hot air register, substantially in the manner described hereafter, so that the hot air from the register may pass in contact with the said fibrous material and take up the water which it has received from the reservoir, the heated air being thereby rendered more pleasant and wholesome.

My invention further consists in a device for obstructing the passage of the water from the reservoir to the aforesaid net work or its equivalent when the vanes of the register are closed.

In order to enable others to make and use my invention, I will now proceed to describe its construction and operation.

The accompanying drawing which forms a part of this specification represents my improvement as applied to an ordinary register, such as is used in dwelling houses in connection with heaters,

Figure 1, being a front view of the register with my improvement, and Figs. 2 and 3, vertical sections of Fig. 1.

A and A' are the opposite sides of the frame of the register and are connected at the top by a reservoir or cistern B, and at the bottom by another reservoir C.

Between the opposite sides A and A' of the frame are hung a series of the usual vanes *a a*, each of which has an arm *b*, jointed to a bar D, so that by operating the latter the vanes may be closed and overlapping each other, be made to exclude the hot air from the room or may be more or less opened so as to regulate the admission of heated air.

In front of the reservoir B is a compartment E separated from the reservoir by a partition *e*, which is rounded on the top as illustrated in Figs. 1 and 2.

G is a net work of cotton wick or other suitable fibrous materials situated so far in

front of the vanes *a* as not to interfere with their action and occupying nearly the whole width of the register between the sides A and A' of its frame. The strands of this net work pass upward through this chamber E over the rounded top of the partition *e* and into the reservoir, the lower end of the net work terminating in the reservoir *c*.

The upper end of the rod D is jointed to an arm H on the plate I, which is hinged to and extends across the reservoir B, the under side of the plate being furnished with a longitudinal projection *i*, which, when the plate is depressed, rests on the rounded top of the partition *e*.

The reservoir B being supplied with water, the vanes of the register being opened and the plate I consequently raised as seen in Fig. 2, the water will find its way along the strands in the reservoir over the top of the partition *e*, and will pervade the entire net work through the meshes of which the hot air must pass before it enters the room and must take up more or less of the water in the net work, the latter being maintained in a moist state as long as any water remains in the reservoir B.

On raising the rod D so as to close the vanes, the plate I will be lowered and its projection *i* brought to bear on the strands of the net work which pass over the partition *e* thereby obstructing the passage of the water along the said strands, the moisture in the net work being unnecessary as long as no hot air passes through the register.

The lower reservoir C is for the purpose of catching any waste water which may drip from the net work. In place of the latter simple strands of any fibrous material capable of absorbing moisture may be stretched across the front of the register, and made to communicate with the reservoir B, or perforated fibrous fabrics may be used in place of the net works or the strands.

It will be evident that the arrangement of the reservoir B in respect to the register, as well as its form may be modified to suit the style of register to which it may be applied, without altering the result.

I do not desire therefore to confine myself to the precise form and arrangement of parts herein described; but I claim as my invention and desire to secure by Letters Patent.

1. Combining a net work, or its equivalent, of fibrous or other material capable of

absorbing moisture, and a water reservoir, with a hot air register, substantially in the manner and for the purpose herein set forth.

2. I claim the plate I, with its projection
5 *i* when connected with the bar D and arranged in respect to the partition *e* as and for the purpose set forth.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

THOS. E. McNEILL.

Witnesses:

HENRY HOWSON,

CHARLES D. FREEMAN.