(No Model.)

C. CLEAR.

HOT AIR REGISTER.

No. 574,135. Patented Dec. 29, 1896.

Fig. I.

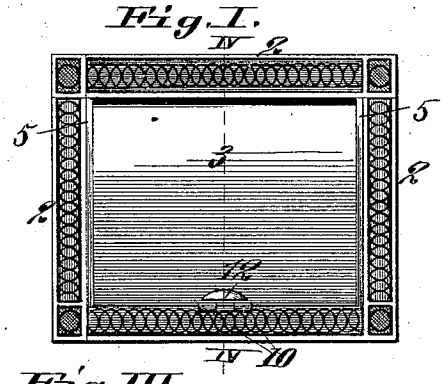


Fig. II.

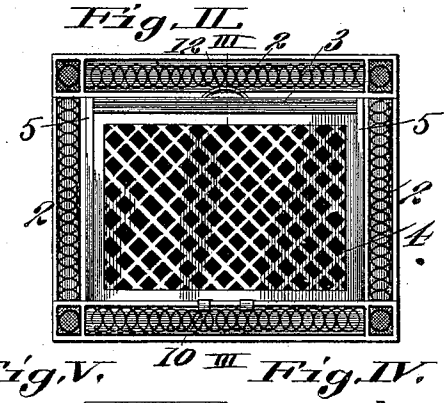


Fig. III.

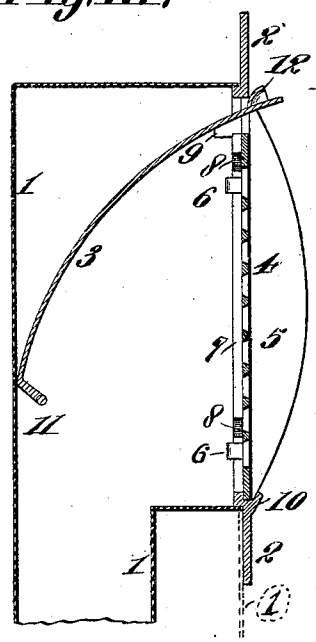


Fig. V.

Fig. VI, Fig. VII,

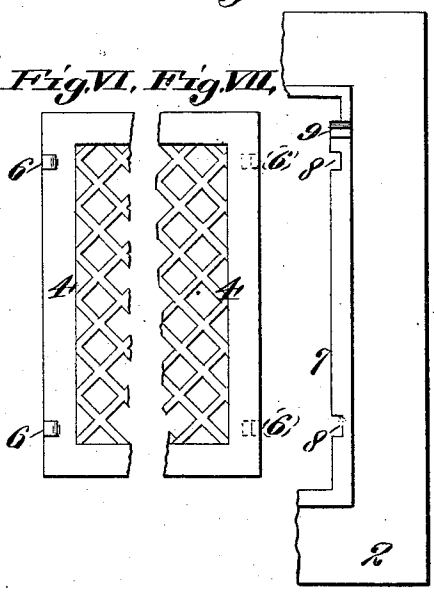


Fig. IV.

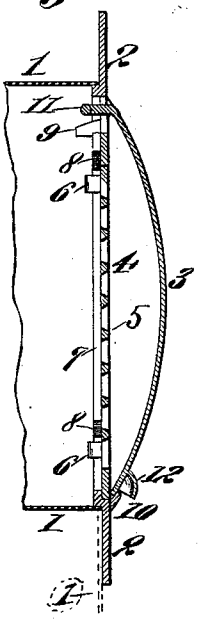


Fig. VIII.

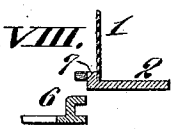


Fig. X.

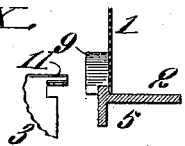


Fig. IX.

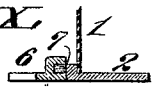
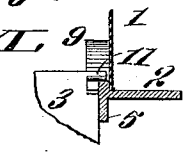


Fig. XI.



Attest:

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UNITED STATES PATENT OFFICE.

CHARLES CLEAR, OF ST. LOUIS, MISSOURI.

HOT-AIR REGISTER.

SPECIFICATION forming part of Letters Patent No. 574,135, dated December 29, 1896.

Application filed March 23, 1896. Serial No. 584,434. (No model.)

To all whom it may concern:

Be it known that I, CHARLES CLEAR, a citizen of the United States, and a resident of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Hot-Air Registers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention consists in novel features of construction hereinafter described and claimed.

In order that my invention may be fully understood, I will proceed to describe it with reference to the accompanying drawings, in which—

Figure I shows a front elevation of a closed register. Fig. II shows the same view, except that the register is open. Fig. III is a vertical section taken along the line III III of Fig. II. Fig. IV is a vertical section taken along the line IV IV of Fig. I. Fig. V is a detail back view of one end of the register-frame. Figs. VI and VII are respectively detail rear and front views of the grille to be set in the opening of the register. Figs. VIII and IX are detail views showing how the grille is set and secured in the frame. Figs. X and XI are detail views showing how the hood or cover for the register is placed in the frame.

1 is the tin box set in the wall of the building. When the register is flush with the floor, the air-space in this box is as shown by dotted lines, but when the register is set over the washboard the box is as shown by heavy lines. It is of the usual construction, and my improvement is adapted to be placed over the opening of such box as it is found in the wall without any change therein. 2 is the stationary frame placed around the said opening of this box, with the face that is exposed to the room ornamented as is desired.

3 is the hood or cover, curved in form, which slides in a slot between the frame 2 and the open grille 4.

5 are end pieces or cheek-plates cast onto the frame 2, which serve to effect a complete closing of the register when the hood is down, as shown in Figs. I and IV.

The grille 4 is secured in the frame 2 by means of ears 6, cast thereon, engaging a rim 7, recessed on the front 2. This rim 7 has openings 8, which allow the ears 6 to pass therethrough, and when the grille is thus in place it drops down, leaving a slot between it and the top of the frame for the hood 3. It also forms a straight front, as is shown in Fig. IX.

9 are lugs to serve as guides, cast on the frame 2, supporting and guiding the hood 3. After this hood 3 is placed in position the grille is set in, as described. When the register is closed, this hood 3 rests on projection 10, while the top thereof is prevented from falling out by means of lugs 11 bearing against the back of the frame 2. 12 is a handle used to open the register, and serving also as a support for the hood when open, as seen by Fig. III. By simply lifting the grille 4 and passing the lugs 6 through the openings 8 the same can be removed. The hood 3 can then be removed, thus affording free access to all parts for dusting or otherwise cleaning. The front of the hood may be ornamented, so that when closed, Fig. I, an attractive panel is presented.

The concaved surface which the hood presents for the current of heated air when the register is open, Fig. III, serves as a deflector and directs the current horizontally into the room. My improvement distributes the hot air evenly over the bottom of the room and thus preserves the cleanliness of the wall above the register.

In summer-time, when heat is not required, the hood 3 completely closes the register, allowing no space for the accumulation of dirt. The device may also be used as a ventilator as well as a register.

I claim as my invention—

1. In a hot-air register, the combination of a face-plate provided with a slot along the upper side, and a hood arranged to cover the register and to slide through the slot upon opening the register; substantially as set forth.

2. In a hot-air register, the combination of a face-plate provided with a slot along its upper side, and a hood arranged to cover the register and to slide through the slot upon opening the register, the arrangement being

such that the hood acts as a deflector when moved to its inner position; substantially as set forth.

3. In a hot-air register, the combination of a face-plate provided with lugs and having a slot along its upper side, and a hood arranged to cover the register and to slide through the slot upon opening the register, said hood being guided and supported by said lugs; substantially as set forth.

4. In a hot-air register, the combination of a face-plate, a grille fitting in the face-plate leaving a slot between the upper side of the grille and the face-plate, and a hood arranged to cover the grille and to slide through the slot upon opening the register; substantially as set forth.

5. In a hot-air register, the combination of a face-plate provided with a projection at the lower outer side thereof, and a hood arranged to cover the register with its outer end fitting within the projection and to slide through the slot upon opening the register; substantially as set forth.

6. In a hot-air register, the combination of a face-plate provided with cheek-plates at the sides, and a curved hood arranged to cover the register and to slide between the cheek-plates to a position back of the face-plate upon opening the register; substantially as set forth.

CHARLES CLEAR.

In presence of—
E. S. KNIGHT,
STANLEY STONER.