B. F. CLEMENT.

STOVE-REGISTER.

No. 192,814. Patented July 10, 1877.

FIG. 1.

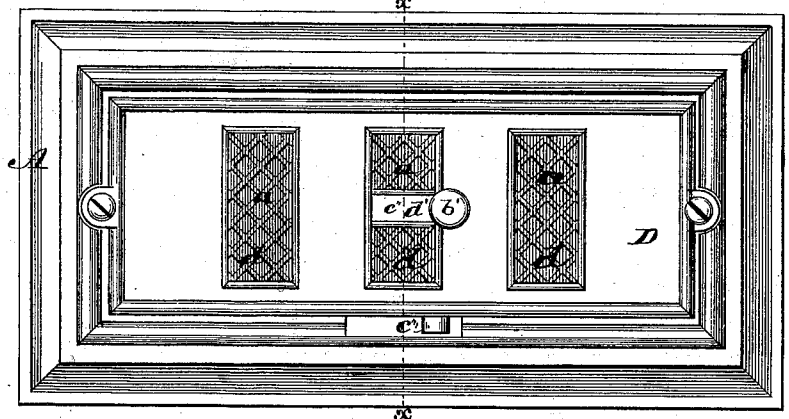


FIG. 2.

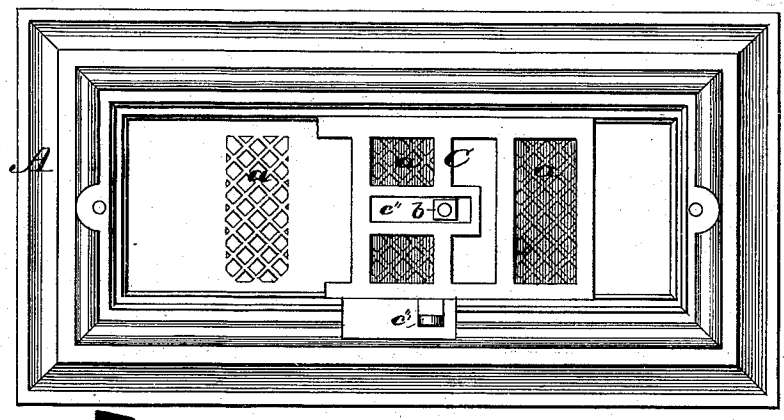


FIG. 3.

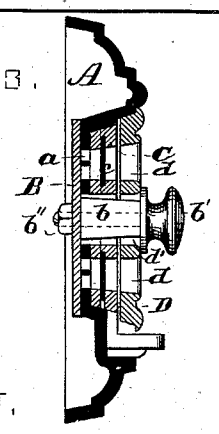
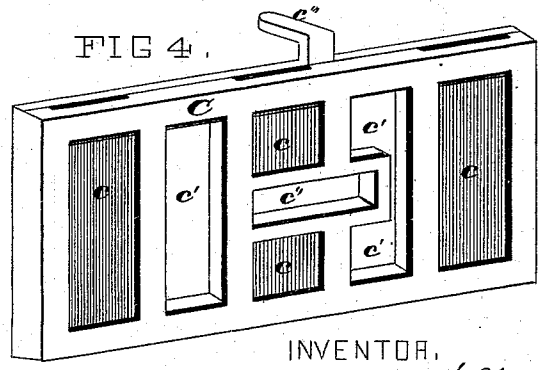


FIG 4.



ATTEST.

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BENJAMIN F. CLEMENT, OF ST. LOUIS, MISSOURI, ASSIGNOR TO CHARLES H. BUCK, OF SAME PLACE.

IMPROVEMENT IN STOVE-REGISTERS.

Specification forming part of Letters Patent No. **192,814**, dated July 10, 1877; application filed May 22, 1877.

To all whom it may concern:

Be it known that I, BENJAMIN F. CLEMENT, a resident of St. Louis, Missouri, have made a new and useful Improvement in Stove-Registers, of which the following is a full, clear, and exact description, reference being had to the annexed drawing, making part of this specification, in which—

Figure 1 is a front elevation of the register, the opaque and transparent slides being closed; Fig. 2, another front elevation, the front plate of the register being removed, and a portion of the transparent slide being broken away, showing the fretwork in the main plate; Fig. 3, a cross-section, taken on the line *x x* of Fig. 1; and Fig. 4 a perspective view of the transparent slide, looking from the rear thereof.

Similar letters refer to similar parts.

The present register is provided with two independent slides, for opening and closing the apertures in the main plate of the register, one being the ordinary opaque slide and the other a transparent slide, by means whereof the apertures in the main plate can be used either for regulating the draft of the stove or for illumination only.

The improvement further relates to the means provided for preventing the escape of the fuel through the aperture in the register, and for the protection of the transparent slide.

Referring to the drawing, A, Figs. 1, 2, and 3 represent what may be termed the main plate of the register. It is provided with the usual apertures *a a a*, Figs. 1 and 2, which are preferably made in the form of fretwork, that is cast as part of the main plate, as seen more distinctly in Fig. 2. B, Fig. 3, represents the ordinary opaque slide, used in opening and closing the apertures in the register. It is arranged at the back of the main plate, and on its front side is provided with a shank, *b*, terminating in a knob, *b'*, at the front of the register, by means of which the slide is moved. C represents what I term the transparent slide. It is made preferably in the form of a sash, as seen in Fig. 4, having two sets of openings, one, *c c c*, being filled with a transparent material like mica, and the other, *c' c'*, being entirely open, for the passage of air. There is a slot, *c''*, through which the shank *b* passes. It is further provided with an arm, *c'''*, that projects forward to beyond the point of the register, as seen in Figs. 1 and 2. This last-named slide, C, is arranged to move upon the front of the main plate, and to open and close the apertures *a a a* therein, as follows: To close the apertures the slide is moved until the mica panes are over them. This prevents the passage of air through the register, but, by reason of their transparency, the openings *c c c* become illuminated. When, however, an air-opening into the stove is needed, the slide C is moved until the apertures *c' c'* and *a a* coincide. D, Figs. 1 and 3, represent what may be termed the front plate of the register. It is fastened to the main plate A, in front of the slide C. It has a series of apertures, *d d d*, that coincide with the apertures *a a a* in the main plate. It also has a slot, *d'*, for the shank *b* to move in. The knob *b'* projects over the edges of the slot *d'*, and has an extension that passes through the shank *b* and plate B, and that, at its end, is threaded, to receive a nut, *b''*, by means of which the slide B is kept in place.

With the combination of slides, as above described, it is seen that either the register can be entirely closed, both to the passage of air and light, as in the usual manner, or it can be closed to air only, leaving the apertures illuminated by the light of the burning fuel. But when it is desired to admit air to the stove both slides can be readily moved to leave the apertures entirely open. When the opaque slide B is open the transparent slide C can be moved either way, without affecting the position of the former. But when the slide B is closed the movement of the slide C, in opening the latter, opens both slides. When slide C is closed the slide B can be moved without moving the former. These various movements are effected by the relative arrangement of the shank and the slot *c''*.

The fretwork in the main slide is useful in preventing the escape of the fuel from the stove. It acts, also, as a guard to the transparent slide. It not only can be easily made, by casting it as part of the main plate, but, from being thus made, both surfaces of the

main plate are left smooth for the slides to move upon.

I claim—

1. The combination, in a stove-register, of an opaque and a transparent slide, such slides moving horizontally upon each other, substantially as described.

2. The combination, in a stove-register, of the slides B and C, operating substantially as described.

3. The combination of the plates A and D and the slides B and C, substantially as described.

4. The plate A, having the fretwork cast in the apertures *a a a*, in combination with the slides B and C, sliding, respectively, upon the back and front of such apertures, substantially as and for the purposes set forth.

5. The combination of the plate B having the shank *b*, and the slide C having the slot *b''*, substantially as described.

6. The combination of the plates A and D, slides B and C, shank *b*, knob *b'*, and nut *b''*, substantially as described and shown.

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Witnesses:

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ANDREW SHERIDAN.