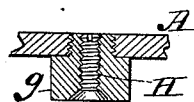
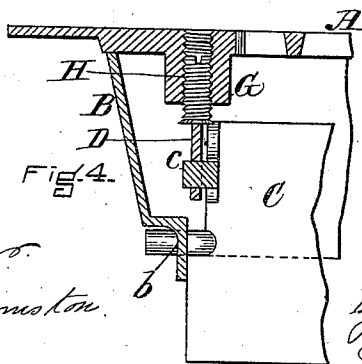
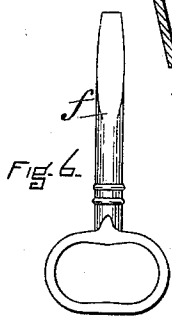
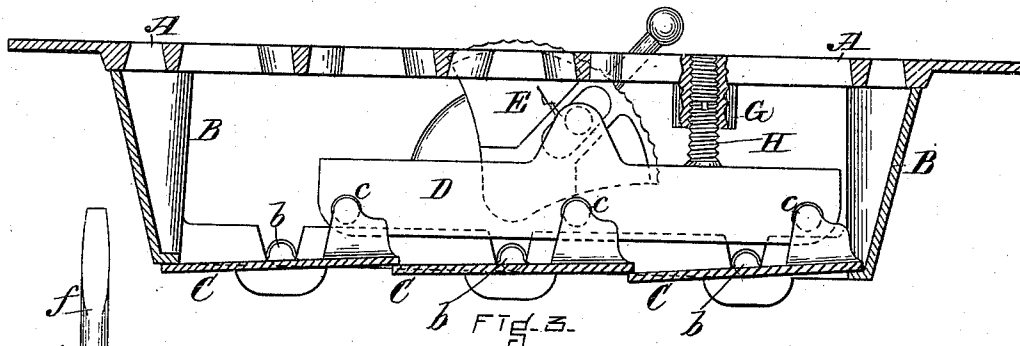
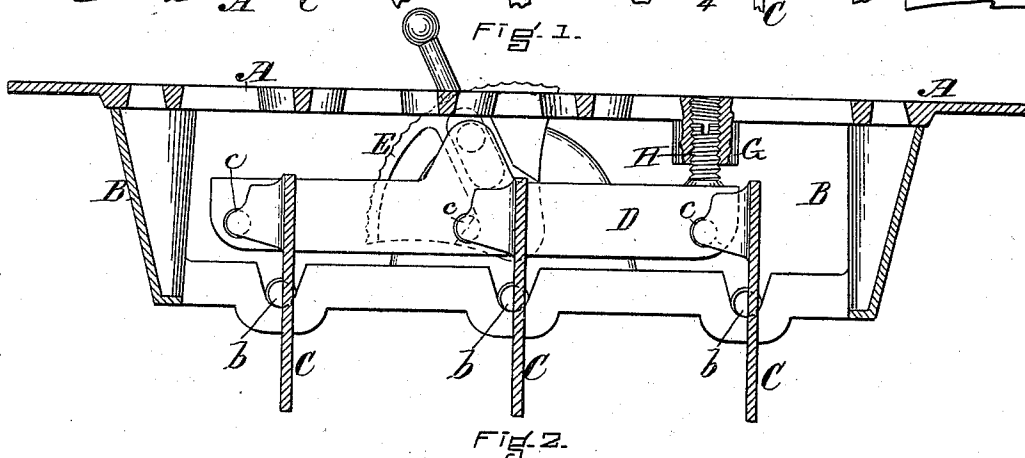
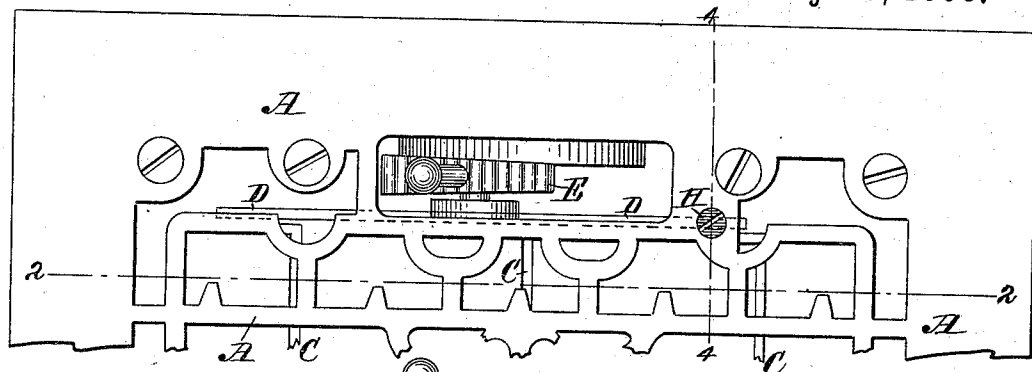


(No Model.)

E. SHENTON.
HOT AIR REGISTER OR VENTILATOR.

No. 542,716.

Patented July 16, 1895.



WITNESSES.

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Alice C. Humiston.

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Att'y

UNITED STATES PATENT OFFICE.

ENOCH SHENTON, OF NASHUA, NEW HAMPSHIRE.

HOT-AIR REGISTER OR VENTILATOR.

SPECIFICATION forming part of Letters Patent No. 542,716, dated July 16, 1895.

Application filed April 8, 1895. Serial No. 544,995. (No model.)

To all whom it may concern:

Be it known that I, ENOCH SHENTON, a citizen of the United States, residing at Nashua, in the county of Hillsborough and State of New Hampshire, have invented certain Improvements in Hot-Air Registers or Ventilators, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a plan of a portion of a hot-air register or ventilator having my improvement applied thereto. Fig. 2 is a vertical section of the same on the line 2 2 of Fig. 1, showing the valves open and locked in this position by my improved device. Fig. 3 is a similar section showing the valves locked in a closed position. Fig. 4 is a vertical section on the line 4 4 of Fig. 1. Fig. 5 is a modification showing the locking device made separate and detachable from the front or face plate. Fig. 6 is a view of the key employed to operate the locking device.

My invention relates to an improved device for locking the valves or shutters of a hot-air register or ventilator either in an open or closed position in such manner that they cannot be changed by meddlesome or unauthorized persons without the use of the proper key, thereby preventing the register from being tampered with, and especially adapting it for use in asylums, prisons, and other locations where it is desired to have the register-valves remain in the position in which they may be set by the person having the care of the same. In the ordinary "lock" or asylum-register the valves or shutters can only be moved by means of a key, and the valve-operating mechanism is somewhat complicated and expensive. Consequently, as their use is somewhat limited, they are made in very few sizes and generally with small apertures in the face-plate, which, although desirable in some cases, render them unsuitable for general use.

My invention has for its object to provide a hot-air register or ventilator of ordinary construction with a simple, convenient, and inexpensive locking device which will not interfere in any manner with the operation of the valves or shutters by means of the usual mechanism, but which will, if it should be desired

to use it, lock the register when open or shut, so that the position of the valves cannot be changed without the use of a key or implement adapted for the purpose.

To this end my invention consists in providing the face or front plate of the register with a locking or set screw adapted to be turned down by means of a suitable key or implement upon the sliding bar, which operates the shutters in such manner as to prevent the movement of the same when the valves are open or closed, as hereinafter more fully set forth.

In the said drawings, A represents the ornamental front or face plate of a hot-air register, within the rectangular frame B of which are pivoted at *b* the rotary shutters or valves C, which are provided with auxiliary journals *c*, which enter holes in a reciprocating slide-bar or connecting-rod D, which is provided with a pin engaging a slot in a sector wheel or lever E, by operating which the register-valves are opened or closed in the usual manner, the slide-bar, by reason of its crank-pin connections with the valves, being necessarily raised as it is moved in either direction to open or close the same. The above-described construction is that commonly used for hot-air registers and forms no part of my invention.

The face-plate A is provided on its under side, as shown in Figs. 2, 3, and 4, with a cylindrical boss or hub G, preferably cast integral therewith, said boss being bored out and threaded in its interior for the reception of a locking or set screw H, provided at its outer end with the usual slot to enable it to be turned in or out by a key or small screw-driver *f*, Fig. 6. This screw H is placed directly over or in line with the edge of the slide-bar D, and by turning it down onto the said bar, as shown in Figs. 2 and 3, when the valves C are opened or closed said valves will be securely locked in either position, as the bar D must necessarily rise or approach the plate A in order to operate the valves in either direction, which movement is effectually prevented when the screw H is brought firmly down into contact with the bar D, as shown. When the screw H is turned down to lock the bar D and valves C, its head will be sunk within its threaded aperture below the level

of the outer surface of the face-plate, as shown in Figs. 2, 3, and 4, in which position it cannot be reached except with the key *f* or with a small screw-driver. Consequently thoughtless or irresponsible persons in public or private buildings are thus effectually prevented by my improved device from changing the position of the valves when either open or closed. When the screw *H* is turned outward into a position to release the bar *D*, its upper end will be flush with the outer surface of the register-face *A*, and, being of small size, it will be hardly noticeable and will not in the least disfigure the face-plate or detract from its ornamental appearance.

The above-described locking device can be applied to registers of any size and may be used or not, as desired, and does not interfere in any manner with the ordinary operation of the register by means of the usual mechanism, as the valve-operating mechanism is entirely separate and independent of the locking-screw *H*, which, when turned out away from the bar *D*, leaves the latter free to be operated as usual by the wheel or lever *E*, thus presenting a great advantage over the ordinary "asylum-register," in which the valves can only be operated by means of a key adapted for the purpose.

If it should not be desired to cast the face-plate with an integral cylindrical boss on its under side to receive the locking-screw, the fretwork-pattern may be so made as to leave a solid portion located where the locking-screw is to be applied, and then if the locking attachment is to be employed the plate *A* can be drilled and tapped to receive a separate cylindrical block or bushing *g*, Fig. 5, within which is fitted the locking-screw *H*.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a hot-air register or ventilator, the com-

bination of valves or shutters, a sliding bar or connecting-rod for operating the valves, a face-plate provided with a threaded aperture directly over the sliding bar, and a set-screw adapted for insertion in the aperture of the face-plate and to be screwed down on the connecting-rod to lock the same and hold the valves either in an open or closed position, substantially as set forth.

2. In a hot-air register or ventilator, the combination of valves or shutters, a sliding bar or connecting-rod for operating the valves, a face-plate provided with a threaded aperture directly over the sliding bar, and a set-screw adapted for insertion in the aperture of the face-plate and to be screwed down on the connecting-rod to lock the same and hold the valves either in an open or closed position, said screw, when turned down within its threaded aperture to lock the valves, having its head sunk below the surface of the face-plate to prevent it from being turned without the use of a key or implement adapted to enter said aperture, substantially as described.

3. In a hot-air register or ventilator, the combination with the valves or shutters, of a sliding bar or connecting-rod *D*, for operating said valves, a face-plate or register-top provided with a separate and independent block or bushing suitably secured thereto, and having a threaded aperture directly over the sliding bar, and a set-screw adapted for insertion in said threaded aperture and to be screwed down on the connecting-rod to lock the same and hold the valves either in an open or closed position, substantially as set forth.

Witness my hand this 5th day of April, A. D. 1895.

ENOCH SHENTON.

In presence of—

P. E. TESCHEMACHER,
J. S. F. HUDDLESTON.