No. 680,657. Patented Aug. 13, 1901.

H. S. HART.

REGISTER, VENTILATOR, OR THE LIKE.

(Application filed Apr. 13, 1901.)

(No Model.)

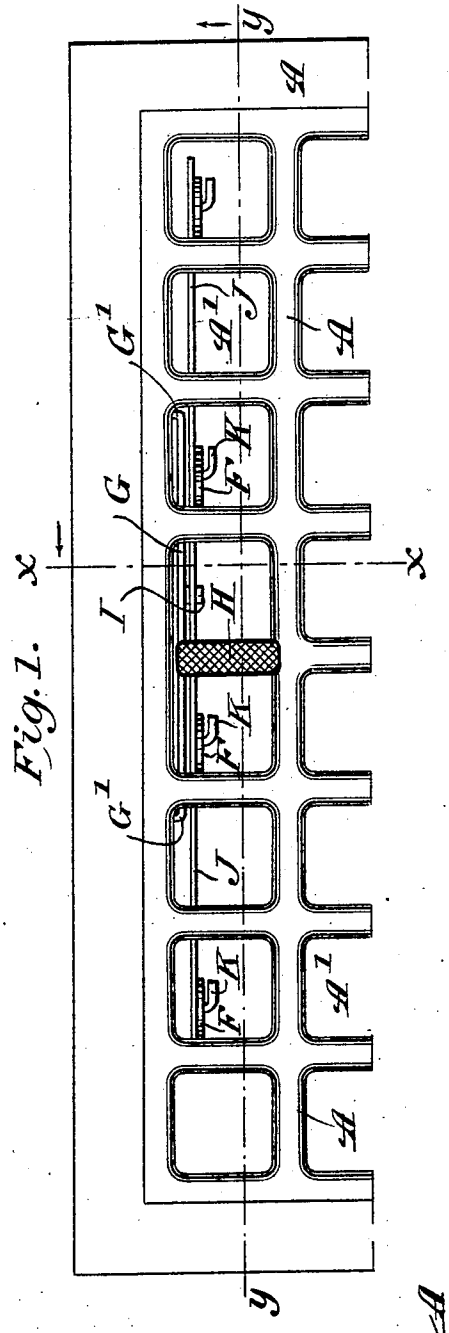

Fig. 1.

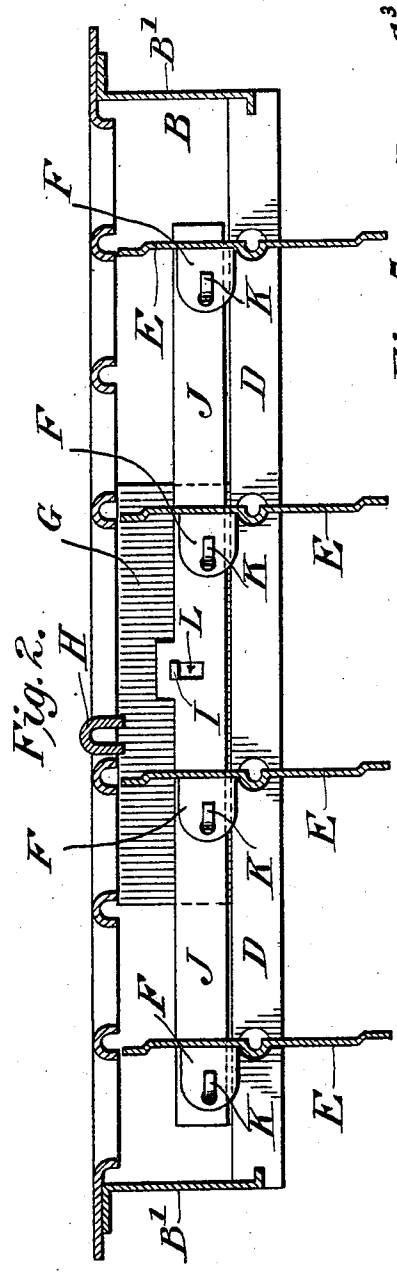

Fig. 2.

Fig. 5.

Fig. 4.

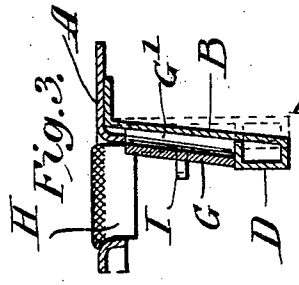

Fig. 3.

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REGISTER, VENTILATOR, OR THE LIKE.

SPECIFICATION forming part of Letters Patent No. 680,657, dated August 13, 1901.

Application filed April 13, 1901. Serial No. 55,626. (No model.)

To all whom it may concern:

Be it known that I, HOWARD S. HART, a citizen of the United States, residing at New Britain, Hartford county, Connecticut, have invented certain new and useful Improvements in Registers, Ventilators, or the Like, of which the following is a full, clear, and exact description.

My invention relates to hot or cold air registers, ventilators, and the like, and particularly to the means for regulating the position of the slats.

Among the objects attained by my device are ease of operation, simplicity and grace of construction, effectiveness, and durability.

In the drawings, Figure 1 is a plan view of a portion of a register. Fig. 2 is a view, partly in section, taken on the line *y y* of Fig. 1 looking in the direction of the arrow. Fig. 3 is a section showing a modification, taken on the line *x x* of Fig. 1 looking in the direction of the arrow. Fig. 4 is a view of a modification. Fig. 5 is a view of another modification.

As there is usually only a single mechanism for operating the slats and as the same is ordinarily located at one end of the register, I have therefore shown but an end portion of a register.

A is a top plate suitably attached to a depending box-like structure comprising end walls B and side walls B'. These walls are preferably connected at the corners of said box.

A' indicates the openings in the top plate A.

The lower edges of opposite side walls of the register-box are projected inwardly, upwardly, and outwardly, so as to form hollow bearings D.

E indicates slats provided with trunnions at each end, which project into the hollow bearings D and are protected thereby.

F indicates lugs which extend from the ends of the slats and are preferably made integral therewith, being stamped and formed up by suitable dies.

G is an operating-slide which is supported upon the bearing D. In the particular form shown G' G' are wings at each end of the slide G and adapted to bear against the inside face of the wall B.

H is an operating-bar on the slide G, which extends slightly above the top plate A. If desired, the operating-bar might be curved, as shown at G^2 in Fig. 4, thus securing a spring effect which gives a friction sufficient to hold the bar in any position. Fig. 5 shows the same effect produced by inserting a thin steel spring G^3, the free ends of the spring bearing against the box. In the particular form shown one of the openings A' is longer than the others to accommodate the movement of the operating-bar H. Said bar H is formed in the plane of the top plate and preferably spans the long opening referred to, so that its free end may overstand the rounded edge of the top plate and upon which said free end may be supported should there be any occasion for such support. The slide G is held from lateral movement. The operating-bar H is much more accessible, as a long free surface on both sides is exposed, and when in the position shown in Fig. 1 it divides the wide space into two spaces of the regular size, thereby preserving the regularity of the design.

J is an intermediate connecting-bar suitably connected to the lugs F of slats E, preferably by pins K. Obviously the arrangement of these parts could be reversed. The connecting-bar is operatively connected to the slide G, for example, by a lug I on either one of the parts, which lug projects into an opening L, preferably in the form of a vertical slot in the other part. In operation the bar J partakes of a swinging movement; but by means of the above connection between said bar and said slide the latter partakes only of a straight-line movement. When the slide G is moved, the lug I moves the bar J and the bar J rocks the slats E through the medium of the pins K.

By the use of the above-described device the operating-slide moves freely and evenly in a manner much superior to the rocking movement common in the art. Furthermore,

the bearings, the supports, and the intermediate connections are such that the parts will not jam.

Fig. 2 shows perpendicular walls for the register-box, while Fig. 3 shows inclined walls therefor. Both forms have their advantages, and I may use either as desired.

What I claim is—

1. In a register or ventilator, a box having an inwardly-projecting bearing for the register-slats and the operating-bar, an operating-bar supported upon said bearing, slats pivoted in said bearing, and means intermediate of said bar and said slats for transmitting motion from the operating-bar to said slats.

2. In a register or ventilator, a box having an inwardly-projecting hollow bearing for the register-slats and the operating-bar, an operating-bar supported upon said bearing, slats pivoted in said bearing, and means for transmitting motion from the operating-bar to said slats.

3. In a register or ventilator, a box having an inwardly-projecting hollow bearing for the register-slats and the operating-bar, an operating-bar supported upon said bearing, slats pivoted in said bearing, and means intermediate said bar and said slats for transmitting motion from the operating-bar to said slats.

4. In a register or ventilator, a box having an inwardly-projecting bearing for the register-slats and the operating-bar, an operating-bar supported upon said bearing, slats pivoted in said bearing, and a bar pivoted to said slats a slot in the intermediate bar and a pin on the operating-bar projecting into said slot.

5. In a register or ventilator, a box having an inwardly-projecting bearing for the register-slats and the operating-bar, an operating-bar supported upon said bearing, slats pivoted in said bearing, and means intermediate of said bar and said slats for transmitting motion from the operating-bar to said slats, and means to frictionally resist the movement of the operating-bar relatively to its bearing-support.

6. In a register or ventilator, a box having an inwardly-projecting bearing for the register-slats and the operating-bar, an operating-bar supported upon said bearing, slats pivoted in said bearing, and means intermediate of said bar and said slats for transmitting motion from the former to the latter, an operating-handle carried by the operating-bar the free end of said handle overstanding and being supported upon the top of said box.

Signed at New Britain, Connecticut, this 8th day of April, 1901.

HOWARD S. HART.

Witnesses:
ALICE C. HASKELL,
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