

Mar. 20, 1923.

J. L. STEARNS.
REGISTER.
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1,449,072.

Fig. 1.

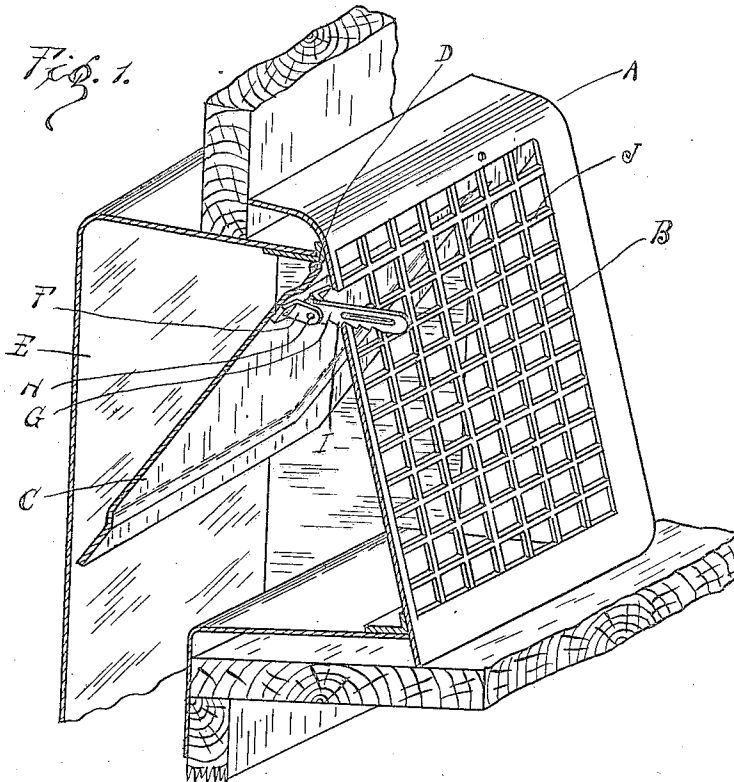


Fig. 2.

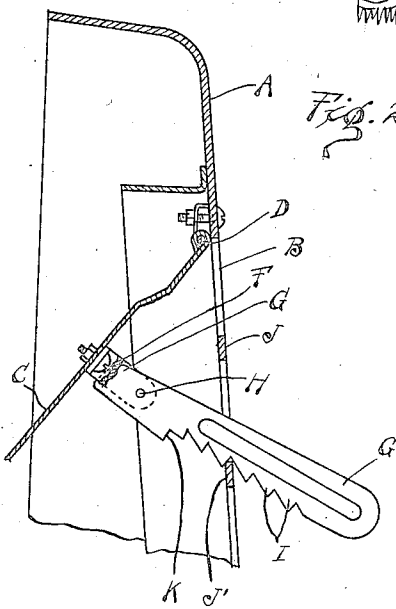
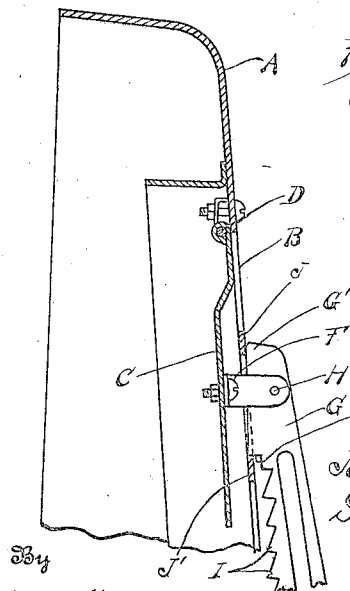


Fig. 3.



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UNITED STATES PATENT OFFICE.

JOSEPH L. STEARNS, OF DETROIT, MICHIGAN, ASSIGNOR TO STEARNS REGISTER COMPANY, OF DETROIT, MICHIGAN, A CORPORATION OF MICHIGAN.

REGISTER.

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To all whom it may concern:

Be it known that I, JOSEPH L. STEARNS, a citizen of the United States of America, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful improvements in Registers, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates to registers, and more particularly to wall registers which are provided with a hinged valve or closure.

It is the object of the invention to provide means for adjusting the valve or closure into different positions, and for locking the same in closed position, and the invention consists in the novel means for accomplishing this purpose as hereinafter set forth.

In the drawings,

Figure 1 is a sectional perspective view of a register to which my improvement is applied.

Figure 2, is a cross section showing the adjusting and locking device in the open position of the valve.

Figure 3, is a similar view showing the closed and locked position.

A is the register frame, preferably formed of pressed sheet metal, and B, is the open grid which is shown as integral with the frame. C, is a lid or valve which is hinged at its upper edge to the frame A, as indicated at D, and which is capable of being closed down to completely cover the open grid. E is the conductor pipe for supplying hot air to the register, and in which the lid C swings.

To adjust and to lock the lid C in different positions I have provided an adjuster of the following construction: F is a bracket secured to the lid C and projecting outward therefrom. G is a bar pivotally attached at H to the bracket F, and provided on its under side with a series of notches I. Both the bar G and the bracket F are adapted to project outward through an opening in the grid, and the proportions are such that when the bar is turned as indicated in Figure 3 its inner side will rest against the grid and will hold the lid or valve in closed position. On the other hand, when the bar is in the position shown in Figure 1 and Figure 2, it may be pressed inward to swing the lid or valve

and the notches I engaging with one of the bars of the grid will hold said lid or valve in different positions of adjustment. To lock the lid C in closed position the bar G is provided with a portion G' projecting beyond the pivot H and engageable with a bar J of the grid. When the bar G is swung upon its pivot the portion G' will move through an arc which would be intercepted by the bar J and by reason of the resiliency of the grid and lid such swinging movement is permitted and the projecting portions G' will pass into the aperture adjacent to the bar J, in the same manner the bar G may be swung upon its pivot into engagement with the bar J, in which position the entire face of the bar G will lie against the outer face of the grid. The bar G is further provided with a lock shoulder K for engaging with the bar J' of the grid. This prevents the portion G' from accidentally swinging out of engagement with the bar J. Thus in the position shown in Figure 3 the lid is effectively locked in closed position; however, it may be unlocked and opened at any time by merely lifting up on the free end of the bar G which first disengages the shoulder K from the bar J' and then swings the portion G; swinging the metal to permit said portion to pass the bar J, after which the lid may be moved to open position and held by the notches I. These notches I are so spaced as to give the desired positions of adjustment of the lid or valve, and they are also preferably spaced so that in open position the free end of the lid will rest against the back wall of the conductor E as shown in Figure 1. The same register may be used with conductors of different depth and by proper spacing of the notches I the lid may be locked against the rear wall of the conductor whatever its dimensions may be.

The device constructed as described is exceedingly simple and inexpensive. It is also easy to manipulate and will remain operative at all times.

What I claim as my invention is:

1. The combination with a grid and a swinging closure hinged thereto, of an actuating member for said closure pivotally attached thereto and projecting outward through an aperture in said grid, said member comprising a notched bar for engaging one of the bars of the grid to hold the clo-

sure in different positions of adjustment and a portion projecting beyond the pivot for locking said closure in closed position.

2. The combination with a grid and a swinging closure hinged thereto, of a bracket secured to said closure projecting outward through an aperture in said grid, a bar pivotally attached to said bracket having a notched portion for engaging one of the bars of the grid to hold said closure in different positions of open adjustment, and a projection on said bar extending beyond said pivot for springing into engagement with a second bar of the grid to lock said closure in closed position.

3. The combination with a grid and a swinging closure therefor, of a bracket projecting outward from said closure through an aperture in said grid, a bar pivotally attached to said bracket having a notched portion on one side of the pivot for engaging the grid on one side of said aperture and holding said closure in different positions of adjustment, said bar having a portion projecting on the opposite side of the pivot swinging in an arc which would be intercepted by the portion of the grid on the opposite side of said aperture, the parts being yielding and resilient to permit of springing into and out of engagement.

4. In combination with a grid of a swinging closure therefor, a bracket projecting outward from said closure through an aperture in said grid, a bar pivoted to said bracket having a portion on one side of the pivot notched for engagement with the grid on one side of said aperture to hold said closure in different positions of adjustment, said bar having a portion on the opposite side of said pivot for springing into locking engagement with the grid and a shoulder on

said bar for holding said locking portion from accidental displacement.

5. The combination with a grid, of a swinging closure therefor, a bracket projecting outward from said closure through an aperture in said grid, a bar pivotally attached to said bracket lying parallel to said grid in the closed position of said closure and having portions on opposite sides of the pivot for engaging portions of the grid on opposite sides of said aperture to lock the closure in closed position, the parts being sufficiently yielding and resilient to permit of swinging said bar into a position for passing through said aperture.

6. The combination with a grid, of a swinging closure therefor, a bracket projecting outward from said closure through an aperture in said grid, a bar pivotally attached to said bracket adapted to lie parallel to said grid in the closed position of said closure, a projection on said bar for springing into engagement with a portion of said grid to lock said closure in closed position, and a shoulder on said bar for locking with said grid to prevent accidental disengagement.

7. The combination with a grid, of a swinging closure therefor, a bracket projecting outward from said closure through an aperture in said grid, a bar pivotally attached to said bracket adapted to lie parallel to said grid in the closed position of said closure, and having means for engaging said grid to lock the closure in closed position, and a shoulder on said bar for locking with said grid to prevent accidental disengagement.

In testimony whereof I affix my signature.

JOSEPH L. STEARNS.