No. 651,667. Patented June 12, 1900.

F. V. KNAUSS.

AIR REGISTER FOR STOVES.

(Application filed June 10, 1897.)

(No Model.)

Fig. 1.

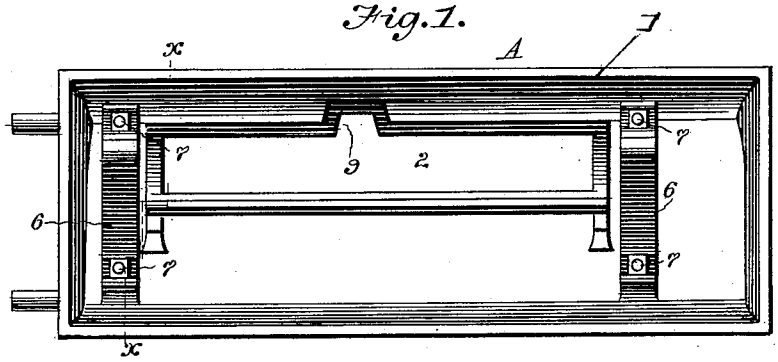


Fig. 4.

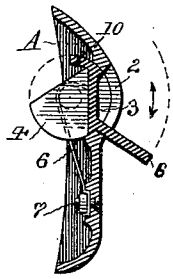


Fig. 2.

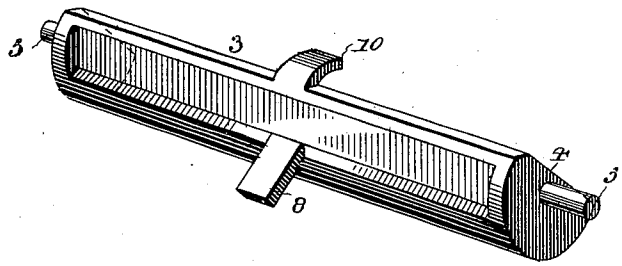


Fig. 6.

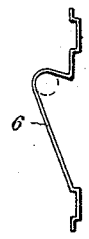


Fig. 3.

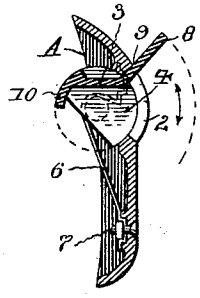
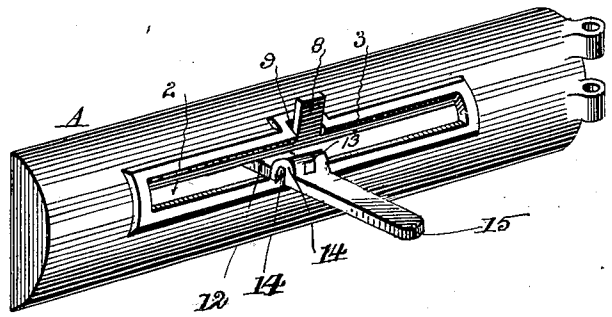


Fig. 5.



WITNESSES:

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FRANK V. KNAUSS, OF PORTSMOUTH, OHIO.

AIR-REGISTER FOR STOVES.

SPECIFICATION forming part of Letters Patent No. 651,667, dated June 12, 1900.

Application filed June 10, 1897. Serial No. 640,171. (No model.)

To all whom it may concern:

Be it known that I, FRANK V. KNAUSS, a citizen of the United States, residing at Portsmouth, in the county of Scioto and State of Ohio, have invented a new and useful Improvement in Air-Registers for Stoves, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a view of the inner side of a stove-door prepared to receive my improved register-gate; Fig. 2, a perspective view of the gate; Fig. 3, a vertical section on line *x x* of Fig. 1, showing the register in open position; Fig. 4, the same view showing the register closed; Fig. 5, a perspective view of the outer side of a stove-door, showing my improved device for operating the grate; and Fig. 6, a detail view.

My invention relates to improved means for shaking the grates of stoves without opening the door of the ash-pit and thereby allowing an excess of air to be supplied to the fuel where such is not desirable; and its object is to provide an improved construction of the same which shall possess superior advantages with respect to efficiency in use.

The invention consists in the novel construction and combination of parts hereinafter fully described and claimed.

In the said drawings the reference-numeral 1 designates the door of a stove of any ordinary or suitable construction looking from the inner side. This door is formed with a longitudinal opening 2, and on its inner side at the ends of said opening is provided with two spring-metal strips 6, secured in place by bolts 7. These strips are made of sheet metal and comprise inclined lower portions and horizontal upper portions, the junction of said portions forming bearings for the journals 5 of a damper 3. This damper consists of segmental heads 4, formed integral with said journals, and the curved longitudinal portion formed in its outer side with an ornamental recess, which, however, is not essential or necessary.

The numeral 8 designates an arm formed integral with the damper, by which it may be oscillated and when the damper is opened fits in a notch or slot 9 in the upper edge of the slot 2. The damper is also formed with a lug 10, which closes said notch or slot when the damper is closed.

The numeral 12 designates the shaker-bar of the grate, the latter not being shown, but which may be of any suitable construction. The outer end of this bar is cut away, forming a lug 13 and studs 14, with which engage the hooks 14 of a shaker 15.

The operation is as follows: When the damper is closed, no air can enter the ash-pit. When it is desired to shake the grate, the damper is raised and the hooked ends of the shaker engaged with the studs of the shaker-bar, so that the latter can be reciprocated to free the grate of ashes. It will then be seen that a comparatively-small quantity of air can enter the ash-pit during the shaking operation.

By reason of making the bearings for the journals 5 resilient said bearings serve not only to normally support the damper 3 closely against the seat, but also compensate for expansion and contraction of the door and damper due to the variations in temperature.

Having thus described my invention, what I claim is—

1. The combination with a stove-door having an opening therein, of the semicylindrical damper provided with journals at the ends and the resilient bearings consisting of spring-metal plates secured at the lower ends to the said door and their free ends bent around said journals, substantially as described.

2. The combination with a stove-door having a longitudinal opening therein with a notch at the upper edge, of the oscillatory semicylindrical damper having a handle and an arm, the journals at the end of the damper, and the resilient bearings secured to said door with which said journals engage, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand, this 22d day of May, 1897, in the presence of witnesses.

FRANK V. KNAUSS.

Witnesses:

ROBERT E. CALVERT,

W. S. TODD.