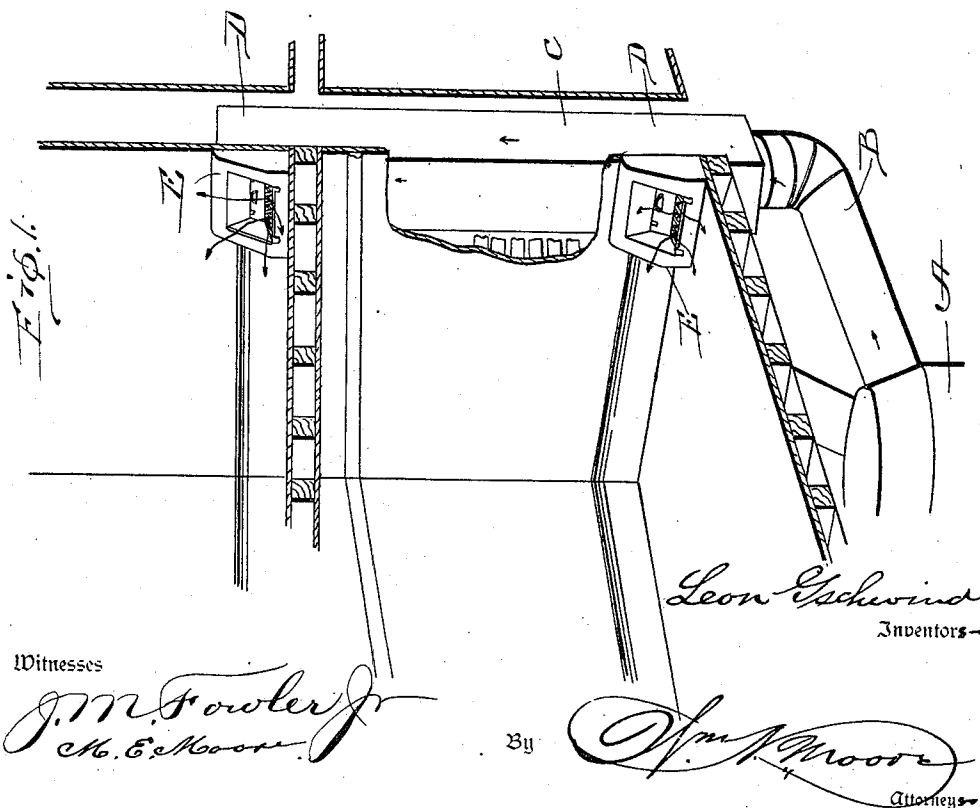
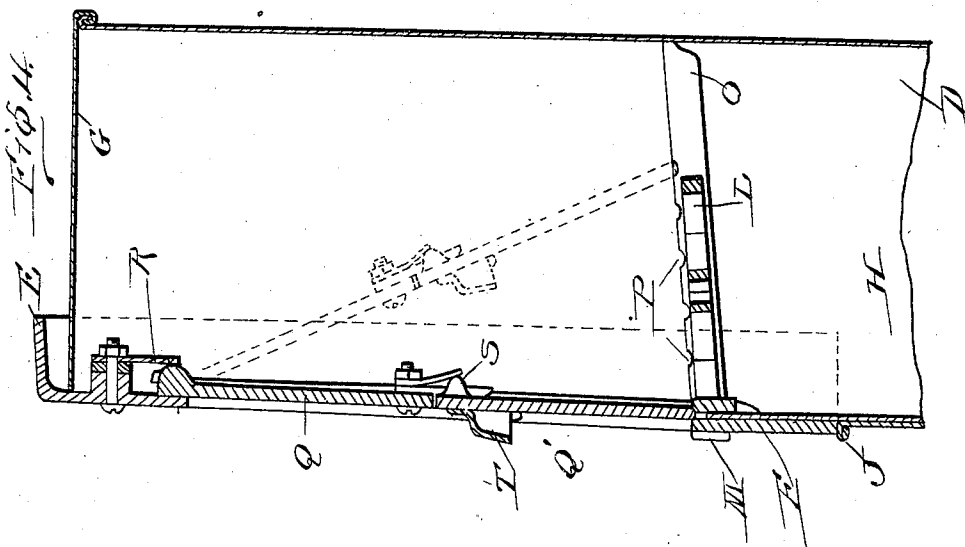


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APPLICATION FILED JAN. 23, 1911.

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Patented June 27, 1911.

2 SHEETS-SHEET 1.

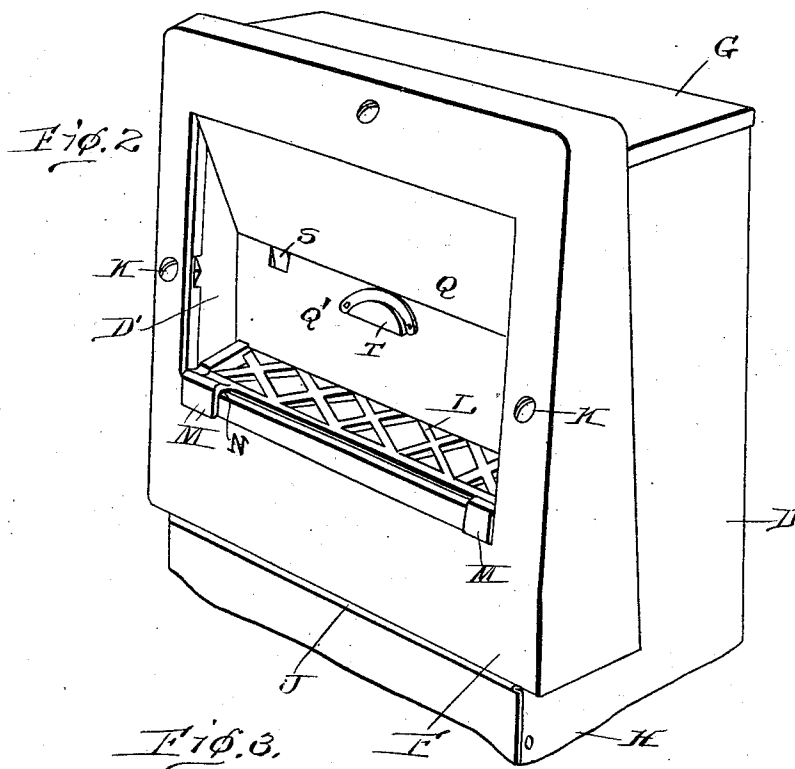


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Witnesses

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UNITED STATES PATENT OFFICE.

LEON GSCHWIND, OF YOUNGSTOWN, OHIO, ASSIGNOR OF ONE-HALF TO MARK M. GUNLEFINGER AND ONE-HALF TO CARL E. GSCHWIND, BOTH OF YOUNGSTOWN, OHIO.

HOT-AIR REGISTER.

996,581.

Specification of Letters Patent. Patented June 27, 1911.

Application filed January 23, 1911. Serial No. 604,220.

To all whom it may concern:

Be it known that I, LEON GSCHWIND, a citizen of the United States, residing at Youngstown, in the county of Mahoning and State of Ohio, have invented certain new and useful Improvements in Hot-Air Registers, of which the following is a specification.

My invention relates to improvements in hot air registers and the leading object of my invention is the provision of a register which will be capable of securing a more perfect regulation and distribution of heat than heretofore attained to insure the best possible results.

Another object of my invention is the provision of a hot-air register which will be of highly ornamental appearance; which will be of the simplest and most durable construction; which can be quickly and easily adjusted to direct and distribute heat as found necessary and which will be practical in every particular.

To attain the desired objects my invention consists of a hot-air register embodying novel features of construction and combination of parts substantially as disclosed herein.

In order that the detailed construction and operation of my register may be fully understood and its many advantages be fully appreciated I have illustrated in the accompanying drawings a register constructed in accordance with and embodying my invention.

Figure 1 represents a view of a hot-air heating system equipped with my improved registers. Fig. 2 represents a perspective view of the complete box and register on an enlarged scale. Fig. 3 represents a horizontal section thereof. Fig. 4 represents a vertical sectional view of the register complete, showing the adjustable door closed in full lines and in dotted lines in an adjusted position.

In the drawings: the letter A indicates the furnace; B the heat supply pipe; C the service or wall pipe; D the register boxes in communication with the wall pipe and E, the series of registers mounted in the boxes which are disposed in the wall pipe to supply heat to the rooms. This view is used to show a heating system equipped with my improvements and the series of register boxes D project forward from the wall pipe and

have the open fronts D', upon which is fitted the flanged register casing F, closed at its upper portion G, to fit snugly on the box and open at its lower end H, and resting on the flange or support J, formed on the box and the casing is removably secured to the box by the fastenings K. From this construction it will be observed that the casing is fitted neatly to the open front of the box and also fitted in the box at the lower edge of the open front is the grate L, which has the outer hooked ends M engaging seats N, of the casing and the arms O formed with the hooks and extending rearward and resting against the rear wall of the box and the arms are provided with the notches P, in which is adapted to engage the lower leaf of the door.

The door is of peculiar construction and consists of the upper section Q, hinged at its upper edge R to the casing and the lower section Q', hinged at S, and upon the lower section is provided a hand grasping portion T by means of which the hinged door may be manipulated to entirely close the box or to cause the lower section of the door to engage any of the notches P, to regulate and direct the heat.

It will be understood that the hinged door can be entirely closed to direct the full supply of hot-air to the register above or that the door may be adjusted to throw any desired amount of hot-air into the room.

My hot-air register overcomes all defects of registers in general use and provides a register which is an ornament to the room and which is thoroughly efficient and practical from every point of view.

One of the most important features of my register is the making of the door in two hinged sections in connection with the hinging of the entire door as this permits the adjustment of the door and the lower hinged section in order that the register box may be closed entirely or adjusted to regulate the supply of heat in any quantity desired, and to properly direct the heat to the room.

I claim:

1. A hot-air register, consisting of a box having an open front with flange at lower edge, a casing fitting the box and having its lower portion resting on said flange, a sectional door hinged in the casing and a grate connected to the casing and adjustably supporting the lower section of said door.

2. A hot-air register, consisting of a box having an extended open front, a flanged casing fitting said front, a door composed of two hinged sections and hinged to the casing, and a grate having arms for adjusting the lower section of the said door.

3. In combination with the supply pipe, the register boxes, communicating with the supply pipe and having open fronts, the register casings secured to and supported upon the open fronts of said boxes, the pair of rods having hooked ends engaging the casings and provided with a series of notches, and the door consisting of an upper section hinged to the casing and a lower section hinged to said upper section and said lower section engaging the notches of the rods to

adjust said lower section for regulating the supply of heat.

4. In combination with the open front register boxes having a supporting flange, the register casing having its lower edge resting on said flange and having a rim engaging the box, a pair of rods carrying a grate and suspended in the box, and a door hinged to said box and consisting of two hinged sections, the lower section resting on the rods.

In testimony whereof I affix my signature, in presence of two witnesses.

LEON GSCHWIND.

Witnesses:

JOSEPHINE BROWN,
SAMUEL E. JOSHUA.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
