No. 846,616. PATENTED MAR. 12, 1907.

J. W. RATZ.

HOT AIR REGISTER.

APPLICATION FILED JAN. 25, 1906.

2 SHEETS—SHEET 1.

Fig. 1.

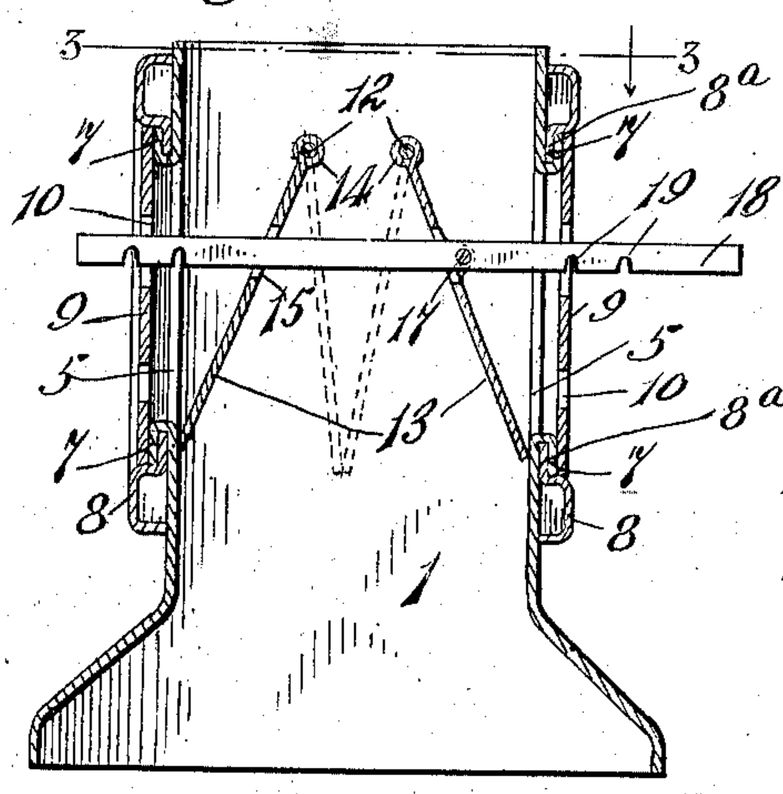


Fig. 2.

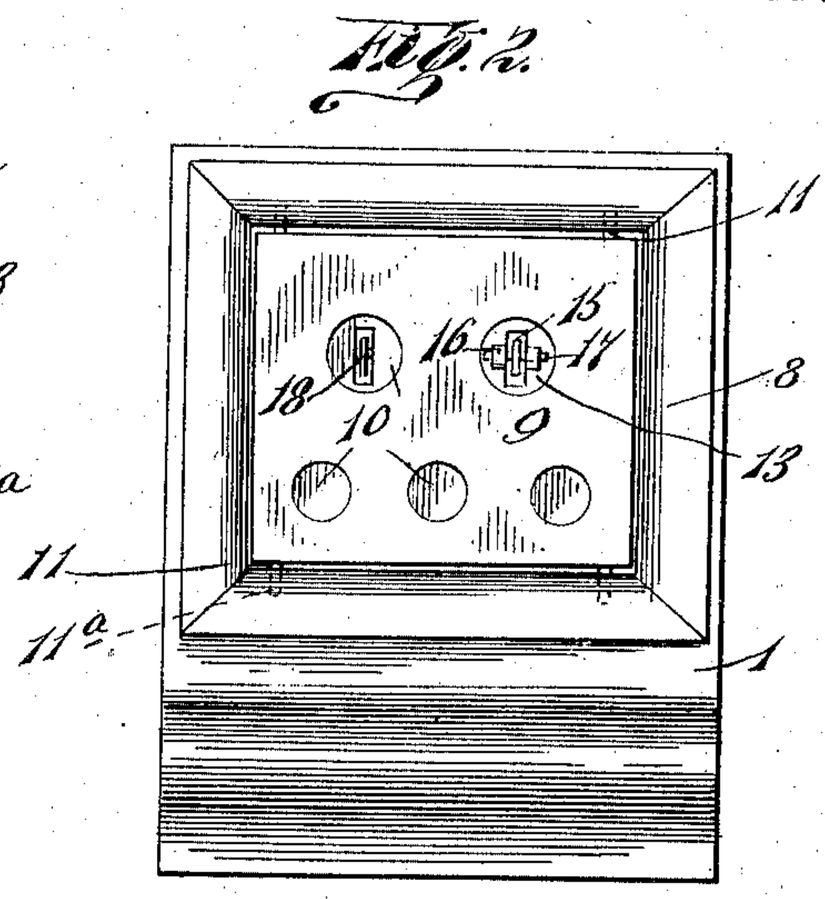


Fig. 3.

Fig. 4.

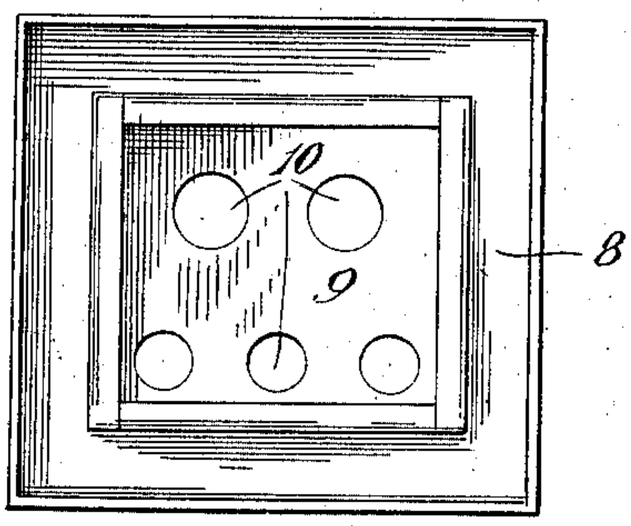
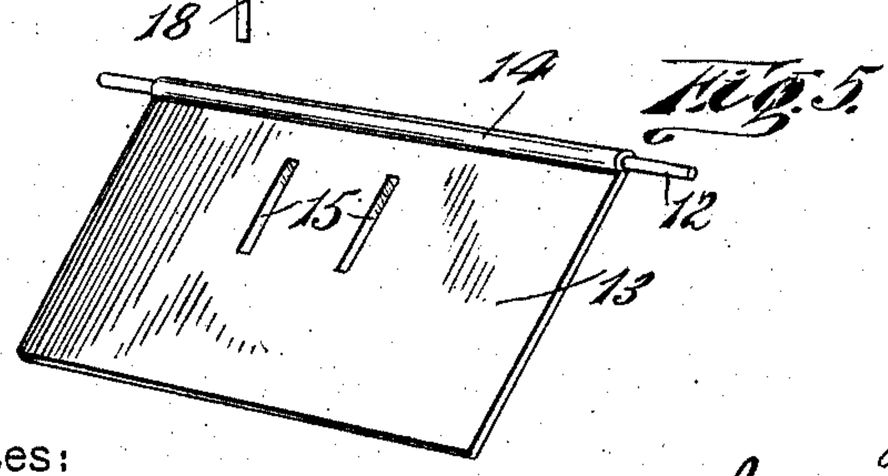


Fig. 5.



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2 SHEETS—SHEET 2.

Fig. 7.

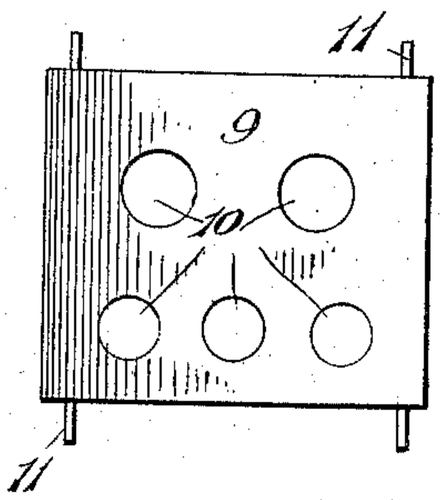


Fig. 8.

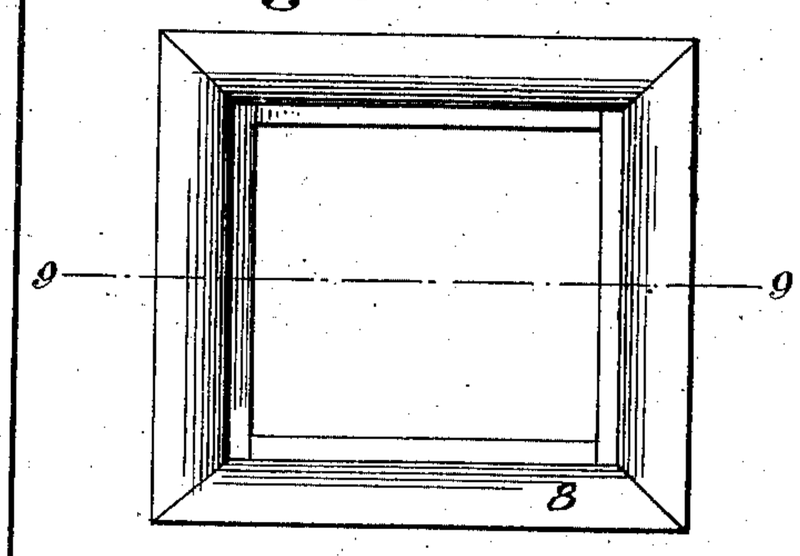


Fig. 6.

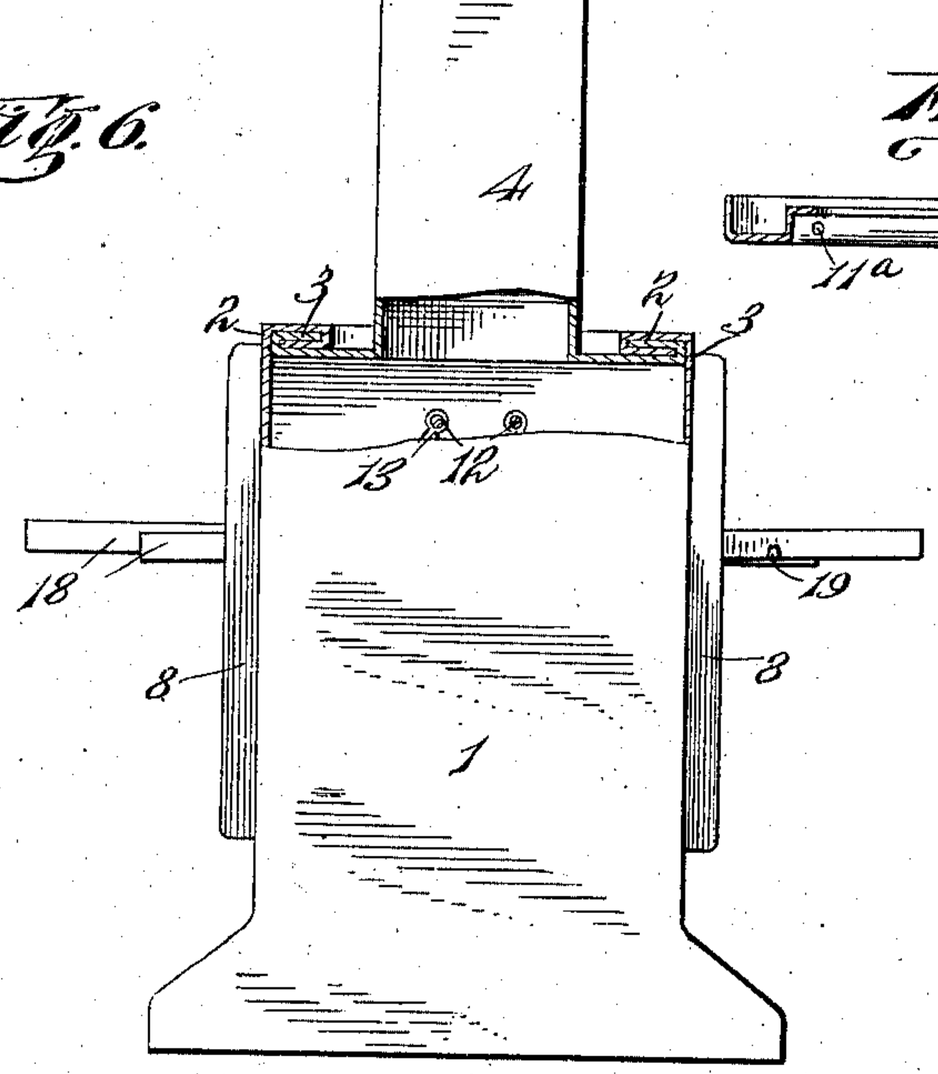
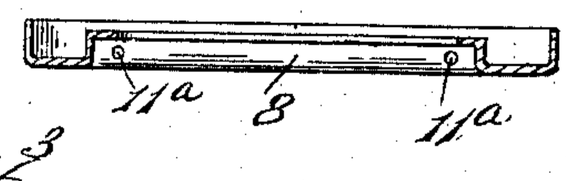


Fig. 9.



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UNITED STATES PATENT OFFICE.

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HOT-AIR REGISTER.

No. 846,616. Specification of Letters Patent. Patented March 12, 1907.

Application filed January 25, 1906. Serial No. 297,797.

To all whom it may concern.

Be it known that I, JOHN W. RATZ, a subject of the King of Great Britain, residing at Tavistock, county of Oxford, in the Province of Ontario, Canada, tinsmith, have invented certain new and useful Improvements in Hot-Air Registers; and I do hereby declare that the following is a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to hot-air registers.

The object of my invention is to provide a register with a plurality of deflector-plates, so that a portion of the heated air may be directed into apartments on either side of the register and a portion of the heated air may be permitted to ascend.

A further object is to provide a construction for operating and locking the deflector-plates from either side of the register.

A further object it to provide means for locking the conduit, border, and face-plate to the register-box without the use of bolts, rivets, &c.; and my invention consists of the construction, combination, and arrangement of parts as herein illustrated, described, and claimed.

In the accompanying drawings, forming part of this application, I have illustrated one form of embodiment of my invention, in which drawings similar reference characters designate corresponding parts, and in which—

Figure 1 is a vertical section through the register-box. Fig. 2 is a side elevation of the register-box, showing the border and face-plate. Fig. 3 is a horizontal section on line 3 3 of Fig. 1 looking in the direction indicated by the arrow. Fig. 4 is an inside elevation of the border, showing the face-plate in elevation. Fig. 5 is a perspective of one of the deflector-plates. Fig. 6 is an end elevation, partly broken away, of the box, showing the connection between the box and the hot-air conduit. Fig. 7 is a plan view of the face-plate. Fig. 8 is a plan view of the border, and Fig. 9 is a transverse horizontal section on line 9 9 of Fig. 8.

Referring to the drawings, 1 designates a substantially rectangular register-box provided with upper inwardly-turned edges 2, adapted to be interlocked with the lower inturned edges 3 of the hot-air conduit 4.

The box 1 is provided with substantially rectangular openings 5 in its sides, the walls of which openings are provided with the outwardly-turned flanges 7.

8 designates a substantially rectangular border having flanges 8^a interlocked with flanges 7 and adapted to receive a face-plate 9, provided with openings 10 and carrying pins 11 on its opposite sides adapted to engage in openings 11^a, formed in the border, by means of which it may be locked in position.

Supported within the box 1 is a plurality of rods 12, each of which carries a deflector-plate 13, the upper edge 14 of which is turned over the rod. Centrally of each deflector-plate 13 there is provided two slots 15, having formed adjacent thereto lugs 16, through which lugs are passed bolts 17.

Disposed through the slots 15 are flat rods 18, each rod being connected to one plate by means of the pivot-bolts 17 and each rod projecting through opposite sides of the casing 1 and through the openings 10 in the face-plate 9, by means of which the deflector-plates 13 may be rocked. Each rod 18 is provided on its bottom edge with a plurality of notches 19, adapted to engage the wall of the opening 10 through which it extends, by means of which the deflector-plates 13 may be positively locked in any desired position.

In all positions of a deflector-plate the pivot-bolt 17 is above the lower edge of the openings 10. When the plate 13 stands vertically and the pivot-bolt is therefore in its lowest position, the rod 18, if turned to a horizontal position, just clears the lower edge of the openings in both the opposing face-plates. It is therefore readily seen that the deflector can be swung in either direction by manipulating either end of the rod 18. When the deflector is at the desired position, the end of the rod nearest the operator is tipped downwardly, the slot in the rod engaging the wall of the opening 10 and locking the deflector.

By the construction described either of the plates 13 may be moved without affecting the other plate, and either plate may be adjusted from an apartment on either side of the register, the latter being commonly disposed in a partition-wall between two apartments.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a hot-air register, a box, a conduit leading from the box, a plurality of deflector-

plates disposed within the box, opposed face-plates provided with openings, a plurality of rods notched at each end, each rod being pivotally attached to a single deflector-plate and projecting through said openings and adapted to engage either of said face-plates to positively lock said deflector-plates in position.

2. In a hot-air register, a conduit having outwardly-upturned edges, a register-box having inwardly-turned upper edges interlocked with the upturned edges of the conduit, a plurality of deflector-plates disposed within said box, opposed face-plates provided with openings, a plurality of rods notched at each end, each rod being pivotally attached to a single deflector-plate and projecting through said openings and adapted to engage either of said face-plates to positively lock said deflector-plates in position.

3. In a hot-air register, a rectangular register-box provided with openings in its opposite sides, the walls of said openings being turned outward, borders disposed around the openings and provided with offset flanges interlocked with the outwardly-turned edges of said box, a face-plate provided with openings and pins adapted to engage openings provided in the border, a plurality of deflector-plates, and means for moving and positively locking and unlocking the deflector-plates from either side of said box.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

JOHN W. RATZ.

Witnesses:
F. L. PEARSON,
GEORGE M. GOULD.