

No. 674,915.

Patented May 28, 1901.

J. H. GIARTH.

REGISTER.

(Application filed Feb. 11, 1901.)

(No Model.)

Fig. 3.

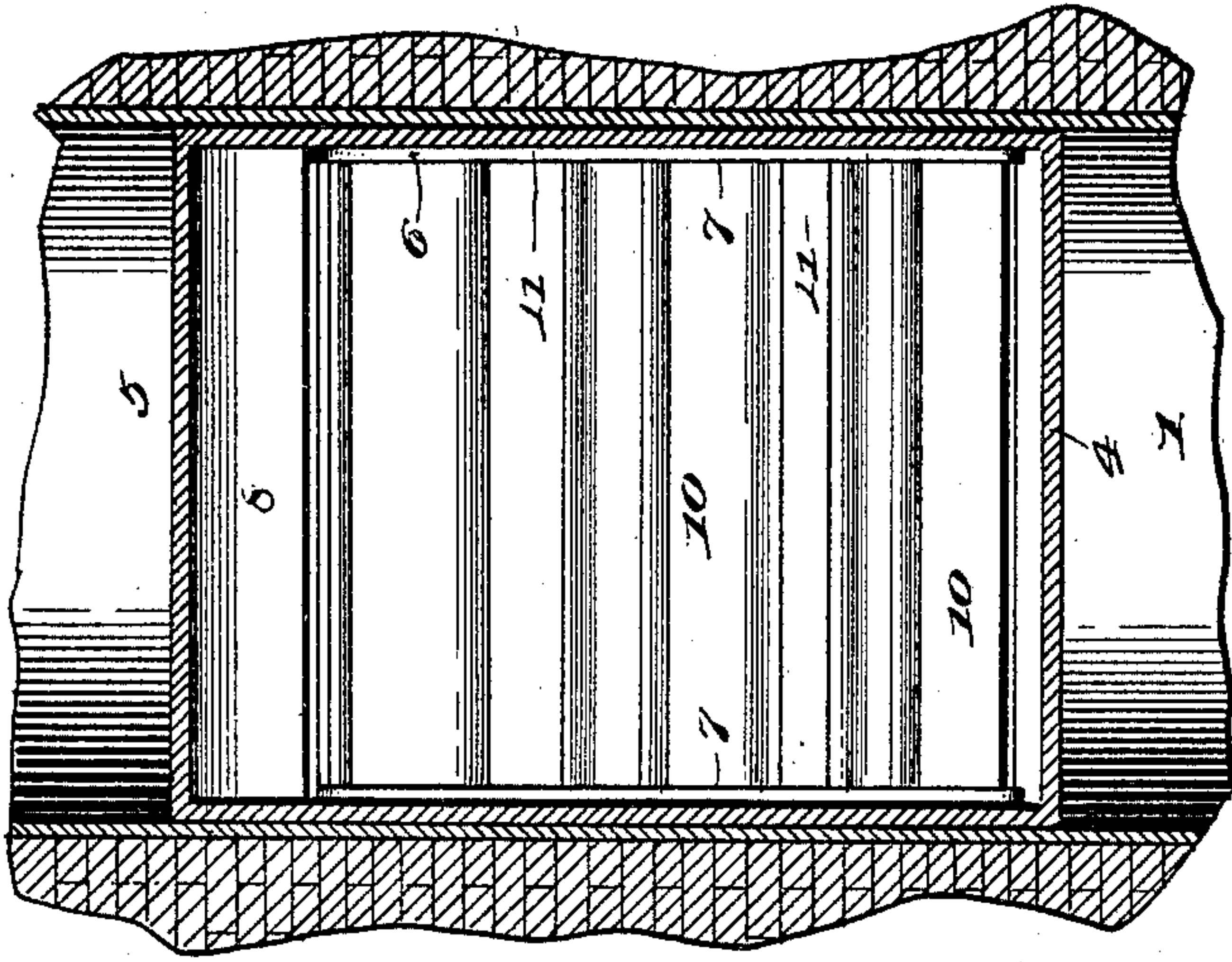


Fig. 2.

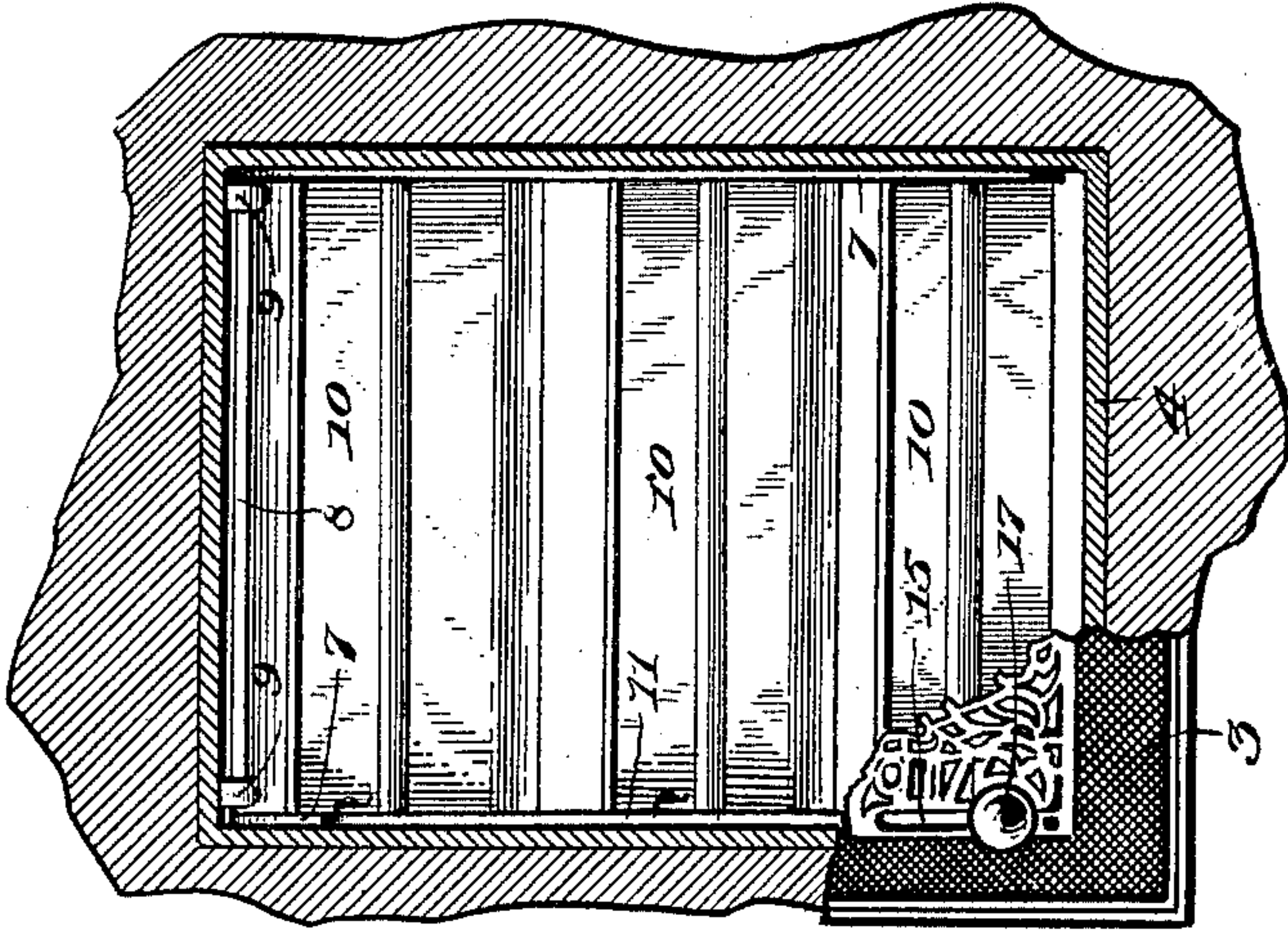
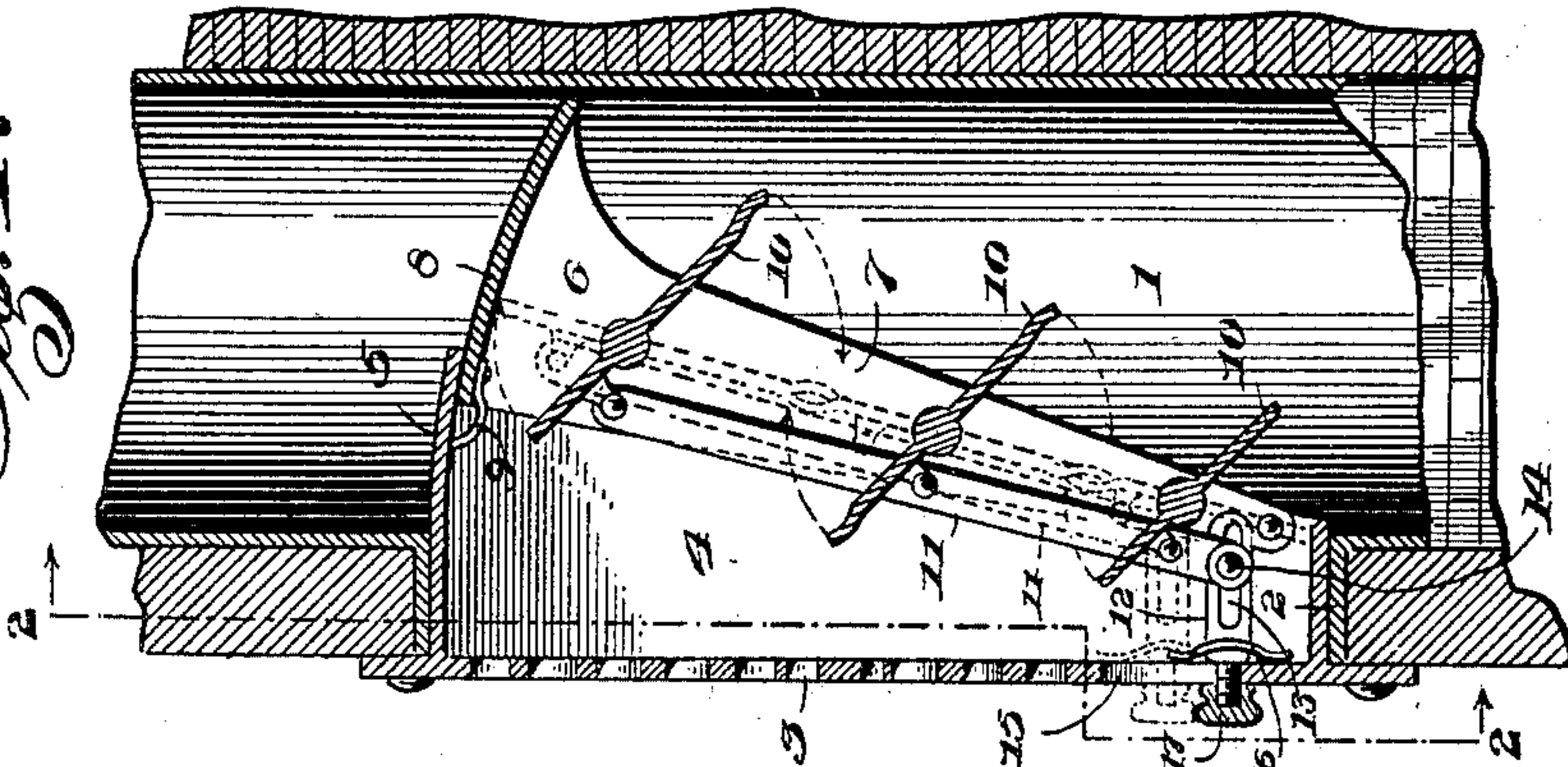


Fig. 1.



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UNITED STATES PATENT OFFICE.

JOSEPH H. GIARTH, OF ALTOONA, PENNSYLVANIA.

REGISTER.

SPECIFICATION forming part of Letters Patent No. 674,915, dated May 28, 1901.

Application filed February 11, 1901. Serial No. 46,871. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH H. GIARTH, a citizen of the United States, residing at Altoona, in the county of Blair and State of Pennsylvania, have invented a new and useful Register, of which the following is a specification.

This invention relates to registers for hot-air flues and analogous applications; and the object of the same is to provide a simple and effective device of this class whereby the heated-air currents will be caused to flow out equally through all parts of a register into a room or compartment, and thus more quickly heat the latter and overcome the disadvantages heretofore encountered in registers through the upper portions of which only the heat mainly passed into a room or compartment, the several parts of the improved device being adjustable to regulate the amount of flow of the heated-air current into a room.

The invention consists in the construction and arrangement of the several parts, which will be more fully hereinafter described and claimed.

In the drawings, Figure 1 is a transverse vertical section of a portion of a heat-flue, showing the improved register applied thereto and also in section. Fig. 2 is a front sectional view on the line 2 2, Fig. 1, of the parts shown by Fig. 1. Fig. 3 is a rear sectional view of the same.

Similar numerals of reference are employed to indicate corresponding parts in the several views.

The numeral 1 designates a heat-flue of any preferred construction and provided, as usual, with register-outlets 2 into rooms or compartments, one only of said outlets being shown, and over the outlet an open-work register face or guard 3 is disposed. Connected to or integrally formed with the said register face or guard 3 is a deflecting box or housing 4, having closed sides and upper and lower ends, but completely open at the front and rear, the said box or housing decreasing in width toward its lower end and the upper end constructed in the arc of a circle, as at 5. The deflecting box or housing 4 has a normal rear extent into the flue, which is fixed when the improved device is mounted in operative position, and in the rear portion of the same a

wing or damper frame 6 is adjustably mounted and comprises closed sides 7 and a closed top 8, curved in the arc of a circle and movable closely against the inner surface of the closed upper end of the box or housing 4. The lower end of the frame 6 is completely open, and said frame converges toward the lower end, the lower terminals of the sides 7 being pivotally connected to the adjacent lower portions of the box or housing sides. The top 8 of the frame 6 has a pronounced rearward extent, so that its maximum rearward adjustment will cause it to contact with the rear wall of the flue, so that the heated-air currents may be completely caused to flow through the register, it being understood that the box or housing 4 and frame 6 will be of such dimensions as to snugly fit within the flue and fully control the direction of the heated-air currents ascending through the flue when the parts are arranged as shown by Fig. 1, or if the arrangement of the frame 6 be such as not to completely close the heat-flue to cause a large portion of the heated-air currents to strike the upper or top portions of the box or housing and the said frame 6 and deflect such currents downwardly to the lower end of the register face or guard and insure a flow of the heated air through all portions of the latter equally. The frame 6 is adjusted when the improved register is placed in operative position in relation to the flue, or it may be afterward adjusted as desired by removing the register face or guard, and to frictionally hold the frame 6 in its adjusted position springs 9 are secured to the front edge portion and have their free ends upturned to frictionally bear against the lower inner side of the top of the box or housing, said springs being strong enough to maintain the adjustment of the frame 6 and to resist accidental movement of the latter.

Within the frame 6 a series of wings or damper-blades 10 are pivotally mounted and decrease in size from the uppermost to the lowermost one, and when said wings or blades are open they also extend rearwardly into the flue and catch and direct the air-currents toward the register face or guard. These wings or blades are also movably connected to an adjusting-bar 11, which extends from the up-

permost one to a lower adjusting-slide 12, having a rear longitudinally-slotted head 13, to which the lower end of the said bar is adjustably connected to regulate the degree of closing movement of the wings or blades and compensate for wear, the lower end of the bar being held by a suitable fulcrum device 14, which will permit it to have a pivotal swing when the frame 6 is adjusted and without interfering with the operative relation of the bar to the wings or blades. The outer or front portion of the slide 12 is reduced and screw-threaded and passes through a vertical slot 15 in the one lower corner portion of the register face or guard, so as to have free vertical movement. Between the front extremity of the head 13 and the adjacent rear portion of the register face or guard a friction-spring 16 is interposed, and on the outer reduced screw-threaded portion of the slide a knob or button 17 is applied and screwed rearwardly with such tightness as to permit free adjustment of the slide in the slot 15 of the register face or guard, but at the same time frictionally maintain the degree of vertical adjustment desired, whereby the wings or blades may be completely or only partially closed, as the occupant of a room or compartment may desire.

It will be seen that the improved register will be effective in causing either the full currents of heated air rising through a flue to be regularly delivered into a compartment or room, or, if only a portion of such currents are caught when the frame 6 is open to permit upper rooms or compartments to be also heated from the same flue, the portions of the currents that are directed through the register will be caused to flow equally through all parts of the latter, and thereby more quickly heat the room or compartment with which the register communicates.

Having thus described the invention, what is claimed as new is—

1. In a device of the class set forth, the combination with a heat-flue, of a box or housing having an open-work register-face in connection therewith, and a frame adjustable in the said flue and box or housing and provided with a series of wings having an opening and closing adjustment.
2. In a device of the class set forth, the combination with a heat-flue, of a box or housing having an open-work register-face in connection therewith, and a frame having a frictional adjustment in relation to said box or housing to have a regulable extent rearwardly into the flue and provided with means for closing the same or permitting only a portion of the heated current to pass therethrough.
3. In a device of the class set forth, the combination with a heat-flue, of a box or housing having a register-face in connection therewith, a frame having a frictional adjustment in relation to said box or housing, a series of wings pivotally mounted in said frame, and adjustable devices for controlling the opening and closing of the said wings.
4. In a device of the class set forth, the combination with a heat-flue, of a box or housing let therinto and having a register-face in connection therewith, a frame having a frictional adjustment in relation to said box or housing, and a series of pivotally-mounted wings in the said frame decreasing in dimensions from the uppermost to the lowermost one.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOSEPH H. GIARTH.

Witnesses:

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FRANK S. APPLEMAN.