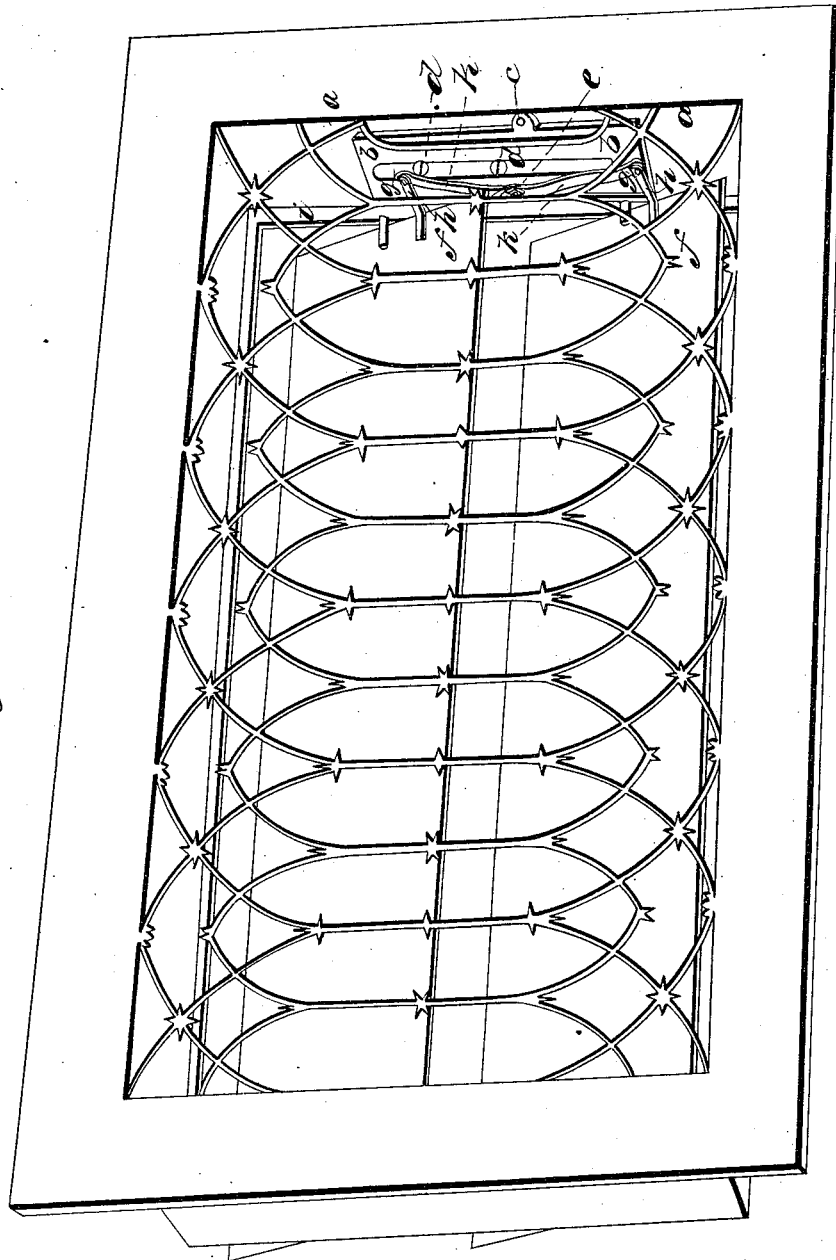


Hot Air Register.

Patented Sept. 11, 1849.

Fig. 1.



UNITED STATES PATENT OFFICE.

CHS. F. TUTTLE, OF WILLIAMSBURGH, NEW YORK.

REGISTER FOR HOT-AIR FURNACES.

Specification of Letters Patent No. 6,708, dated September 11, 1849.

To all whom it may concern:

Be it known that I, CHARLES F. TUTTLE, of Williamsburgh, county of Kings, State of New York, have invented a new and Improved Method for Opening and Closing the Valves of Hot-Air Registers and Ventilators; and I do declare the following to be a full and exact description.

The nature of my invention consists in the new and improved method of opening and closing the valves of hot air registers and ventilators by means of a slide piece placed either at the top or at one end of the register the said slide piece being connected to the valves by means of connecting rods that work with a joint at their point of connection with the slide. And also with a joint at their point of connection to the valves. One end of the connecting rod moving in a circular direction corresponding to the motion of the valves moved, constructed so as to seriously diminish the friction in opening.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation, reference being had to the annexed drawings, in which—

Figure 1 is a perspective view, and Fig. 2 a sectional view of one end containing the slide and apparatus for moving the valves. Fig. 3 represents an arrangement for opening and closing a register with three valves.

My register is constructed as the improved styles of registers are with the top or front of open scroll or fret work. That part of the frame in which the valves are suspended is far enough from the top or front to allow the valves to play freely on their pins or axles, without touching the top of the register. The top or front part is usually made so that it can be taken off and ready access be had to the valves or working apparatus. The valves must be confined at their pins or axle with clasps or otherwise, in a manner that will allow them to play freely, and yet prevent them from getting out of place. The slide piece *b b*, is suspended at the side or end of the register (*a a* representing the top of the register) (this slide

piece may be placed at the top) and is suspended by the two pins or fixtures *d d*, or otherwise, that will allow the slide to move with ease.

f f, are the valve pieces which are used to shut off the current of air from passing through the register.

l l are the connecting rods which join or connect the slide piece to the valves, and through which the motion is imparted. At the point *e* at which the connecting rods join or connect to the slide piece is a joint, made by the rod working over a pin on the slide piece or otherwise. Also at the place where the connecting rods are connected to the valves as at *g g*, is a joint or joints, these joints allow the connecting rods to accommodate themselves to the motion of the valves without binding and without much friction.

h h are pieces or arms projecting from the surface or ends of the valves to which the connecting rods are attached.

i i is the lower part of the frame in which the valves are suspended.

c is the small projection or knob at the surface of the register, by which the slide piece is moved and the valve set in motion. The manner in which the motion is imparted from the slide piece, through the connecting rods to the valves, may readily be seen by looking at Fig. 2.

What I claim as my invention and desire to secure by Letters Patent, is—

The combination of the slide piece and the connecting rod or rods for the opening and closing of hot air registers and ventilators, the said connecting rod or rods being so joined to the slide piece as to form a joint at the place of connection, the said connecting rod or rods also forming a joint at their point of connection to the valves or arms thereof, causing the end of the rods joined to the valves to move in a circular direction, corresponding to the motion of the valves when moved.

CHAS. F. TUTTLE.

Witnessed by—

ELW. A. TUTTLE,
JAMES S. BAILEY.