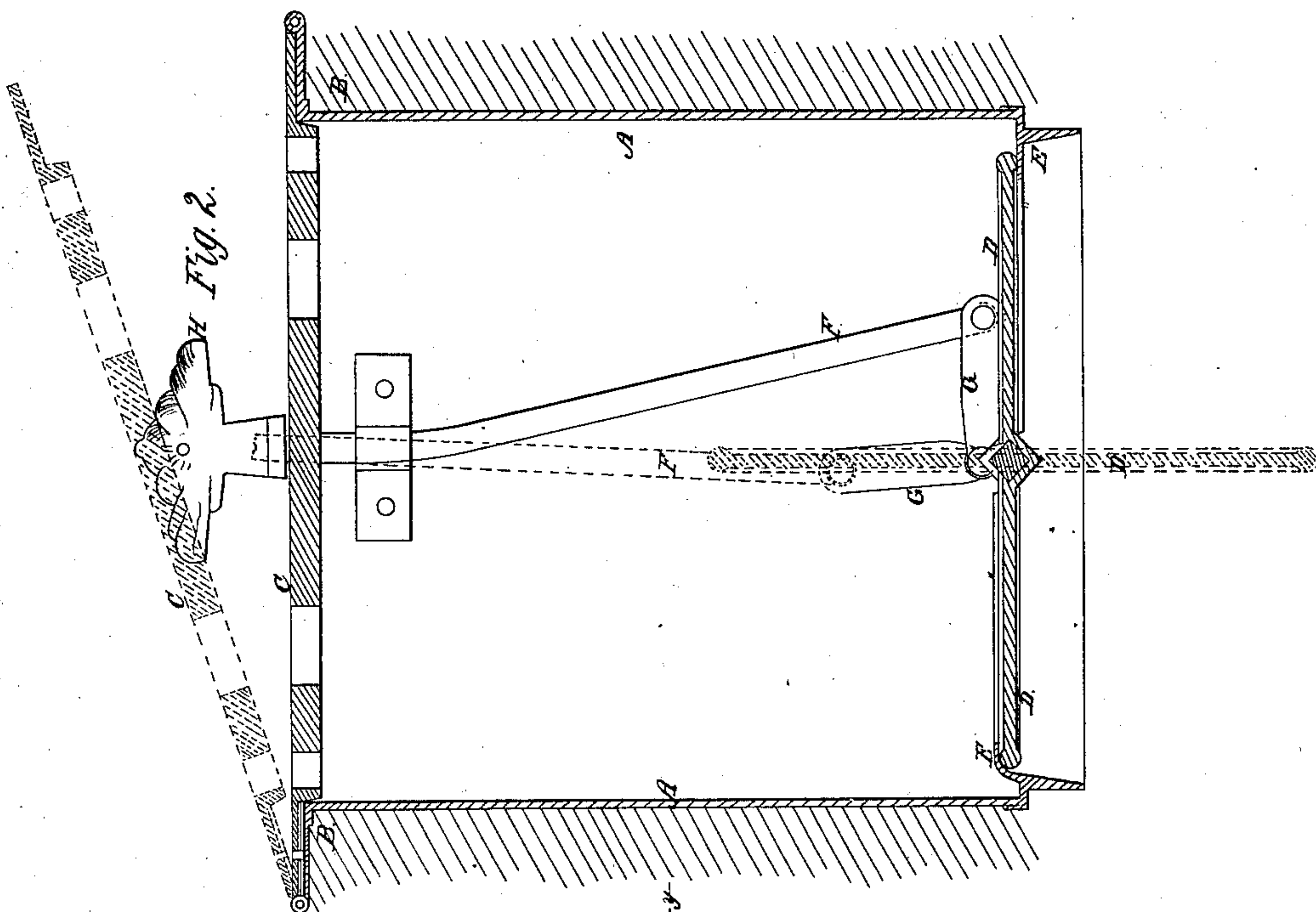


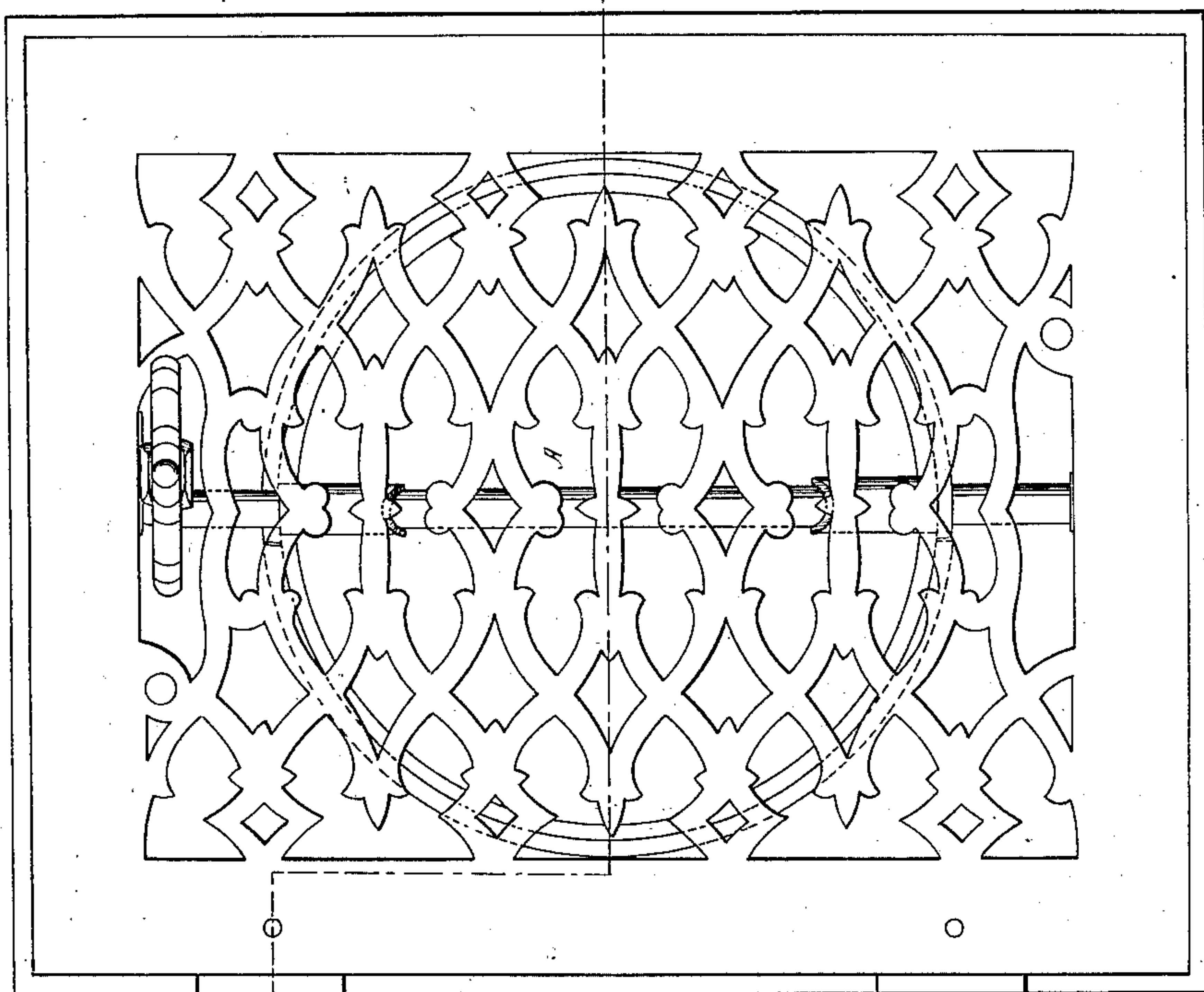
No. 32,897.

PATENTED JULY 23, 1861.

S. B. SEXTON.  
REGISTER.



*Fig. 1.*



Witnesses,  
*James Selam,*  
*B. L. Hughes.*

Inventor:  
*S. B. Sexton by*  
*A. Pollak*



# UNITED STATES PATENT OFFICE.

S. B. SEXTON, OF BALTIMORE, MARYLAND.

## HOT-AIR REGISTER.

Specification of Letters Patent No. 32,897, dated July 23, 1861.

*To all whom it may concern:*

Be it known that I, S. B. SEXTON, of the city of Baltimore, in the State of Maryland, have invented 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 same, reference being had to the accompanying drawing, in which—

10 Figure 1 represents a front elevation of my improved hot air register, and Fig. 2 a sectional view of the same through the line *x—y* in Fig. 1.

Registers as heretofore constructed, consist of a box or case generally of quadrangular form, covered in front or at the part which comes flush with the wall into which it is set, by an openwork ornamented plate and are provided with movable valve-plates, and a mechanism for opening and closing the same. These valve-plates are generally located in front or in the immediate vicinity of the ornamented plate and consist of a series of shelves rotating on vertical or horizontal spindles in close proximity to each other, so that when open, said shelves divide the interior space of the box or case into narrow apertures through which the hot air is permitted to enter the room to be heated. Such registers present serious disadvantages to obviate which is the object of my invention.

To enable others skilled in the art to make and use my invention, I shall now proceed to describe its construction and *modus operandi*.

A, is a box of quadrangular form, provided at the front or the part corresponding to the wall, with a flange B, to which is hinged the cover plate C. In the rear or bottom of the box is located the register valve D, which consists of a disk of circular or other convenient form, fitting at its border or rim against a circular, or otherwise correspondingly shaped flange E, that is so arranged as that one half of it will fit and close against the disk rim at the inside while the other half fits the outer portion thereof.

50 The spindle upon which the valve rotates is here shown as set vertically in bearings

at the juncture of the two flange sections and is operated by a handle H to which is attached the crank F and connecting rod G, so that, by imparting to it either a back or forth motion the valve will be closed or opened.

Registers constructed and arranged as above described present advantages which no other register is capable of. The locating of the valve in the rear of the register box affords all the necessary room or space within the box *i. e.* in the rear of the front plate to contain a cup or vessel filled with water or some other fluid which being exposed to a constant current of heated air will evaporate and thereby furnish the atmosphere with the requisite amount of humidity and give it the proper hygrometrical condition necessary for the health of the occupants of the room. This free and open space in the box as combined with the door plate in front is also exceedingly convenient and particularly in nurseries for keeping plates, water, eatables or other things warm, without necessitating the use of a separate fire or lamp etc.

The peculiar arrangement of the single register valve plate hinged on a central vertical or horizontal axis and when combined with the door or hinged cover plate in front, is of paramount convenience in case the flue pipe or tube requires adjustment or repair, as by it the removal of the whole register may be dispensed with and will enable any one easily to effect the said adjustment or repairs, with the register in place. The register being closed in front by a door or plate hinged to one side of the register frame and the valve by its operation dividing the space within the box by a vertical partition as it were—it is obvious that abundant room is afforded for the operator to pass his hand and tools through the box and reach the flue pipe and thus effect the work required to be done. And lastly the danger attending other registers that have the register valve within the box and in front thereof, by overheating the walls which generally contain woodwork or some other combustible matter are entirely obviated as by the act of closing of the valve

of my register, the flue is shut off beyond the wall.

Having thus described my invention, I shall state my claim as follows:

- 5 In combination with the hinged front plate, a register valve constructed and operated substantially as described whereby access to the flue pipe may be had for its adjustment or for other purposes without ne-

cessitating the removal of the register box 10 as herein set forth.

In testimony whereof I have signed my name to this specification before two subscribing witnesses.

S. B. SEXTON.

Witnesses:

A. POLLAK,

C. L. HUGHES.