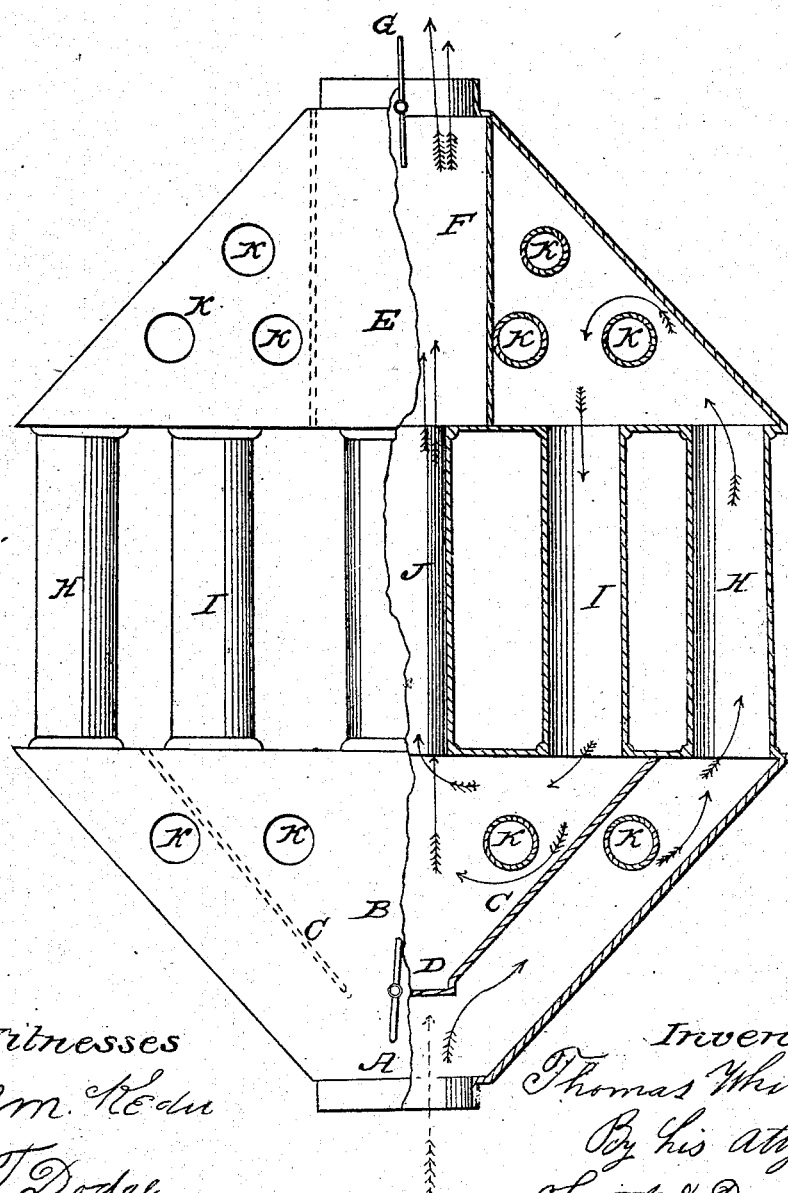


T. WHITSON.

Stovepipe Drum.

No. 47,887.

Patented May 23, 1865.



Witnesses  
E. M. K. du  
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# UNITED STATES PATENT OFFICE.

THOMAS WHITSON, OF WOODSTOCK, ILLINOIS.

## STOVE-PIPE DRUM.

Specification forming part of Letters Patent No. 47,887, dated May 23, 1865.

*To all whom it may concern:*

Be it known that I, THOMAS WHITSON, of Woodstock, in the county of McHenry and State of Illinois, have invented a new and Improved Heat-Radiator for Stoves; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing and the letters of reference marked thereon:

The nature of my invention consists in a novel construction of return-flues adapted for application to any stove now in use, by means of which a large amount of the heat which ordinarily passes into the chimney may be radiated into the atmosphere of the room, and thus utilized.

That others may understand the construction and operation of my invention, I will particularly describe it.

A is the collar, of suitable size to fit the pipe-collar of the stove to which the radiator is to be applied. B is the base of the radiator, (which is shown one-half in section,) divided into two chambers or passages by the partitions C, having the valve D at their lower end. E is the top of the radiator, also divided into three parts by the partitions F, and is provided with the valve G in its collar, which is of suitable size to fit the pipe that is to be placed upon it.

Between the base B and the top E are the pipes H H, I I, and J, and to increase the radiating-surface, the horizontal short and open pipes K K K are inserted, extending through from front to rear, and open at each end.

It is obvious that the external form of my apparatus, or the number or arrangement of the pipes, may be varied as well as its dimensions, in order to adopt it to any particular locality or circumstance.

The operation is as follows: When the valve D is open, as shown by red lines in the figure, the draft passes directly upward in the direction of the red arrow, through the pipe J, through the central passage of E, past the

valve G, and into the main pipe, to the flue of the chimney. This renders it convenient when lighting the fire, as it is often difficult to induce a draft through a cold tortuous passage, whereas it may be readily induced through a straight one. If, however, it is desirable to increase the heat in the room, the lower valve, D, is closed, as shown in the drawing, and the current of heated air is then deflected and forced to divide and ascend through the outside passage of B, through the pipes H H into the top E, where the partitions F arrest its upward progress and force it to descend through the pipes I I into the inner chamber of B, from whence the passage is clear through the pipe J and valve G to the chimney. This circulation is indicated by black arrows. It will be seen that the short transverse pipes K will be continually bathed in heated air, and being open at their ends, allowing a free current through them from the atmosphere of the room, they will necessarily extract a considerable quantity of caloric from the heated air within the radiator. The valve G is made somewhat smaller than the diameter of the pipes in which it is placed, as it is not desirable to close completely the duct through which the products of combustion must pass, as in that case they will inevitably escape to some extent into the room.

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

A heat-radiator for use in connection with a stove, consisting in a base, B, and top E, provided with the partitions C and F, connected by the flues H and J and return-flues I, and provided with the valves D and G, and with or without the transverse pipes K, substantially as described.

THOS. WHITSON.

Witnesses:

ASA W. SMITH,  
EDWIN WHITSON.