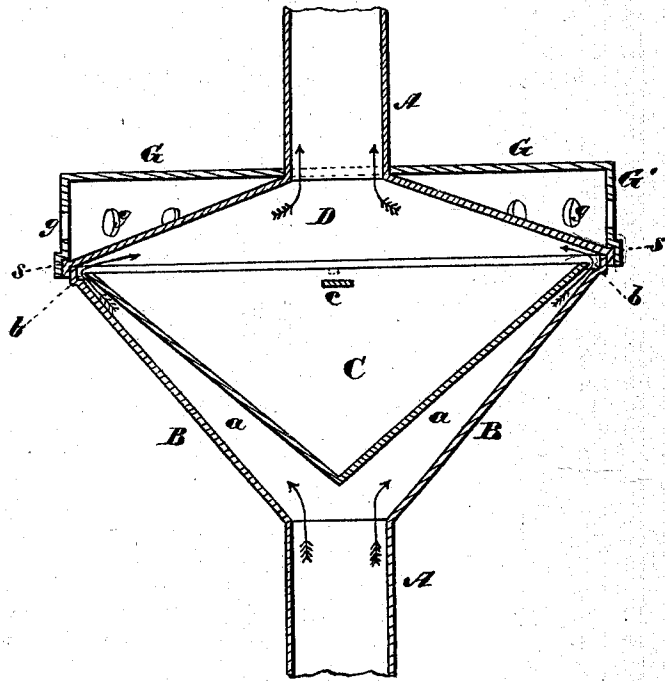


O. D. SPALDING.
Heating-Drums.

No. 144,573.

Patented Nov. 11, 1873.



Witnesses.
E. M. Bates.
Phil. C. Masi

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UNITED STATES PATENT OFFICE.

ORLANDO D. SPALDING, OF MANKATO, MINNESOTA.

IMPROVEMENT IN HEATING-DRUMS.

Specification forming part of Letters Patent No. **144,573**, dated November 11, 1873; application filed August 23, 1873.

To all whom it may concern:

Be it known that I, ORLANDO D. SPALDING, of Mankato, in the county of Blue Earth and State of Minnesota, have invented a new and valuable Improvement in Stove-Drum or Heater; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings making a part of this specification and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a section of my stove-drum.

This invention has relation to stove-drum heaters; and consists in the double cones, removable inverted cone, and a shelf with a perforated flange, as will be hereinafter more fully described.

In the accompanying drawings, A is the stove-pipe, which consists of two sections united by a joint at s. The lower section has an upwardly-flaring or conical enlargement, B, formed on it, and the upper section has a downwardly-flaring or conical portion, D, formed on its lower end. When the bases of the two cones are united a double conical chamber is formed, through which the flame and smoke from the stove pass on their way to the chimney. The enlarged chamber thus formed contains within its lower portion an inverted cone, C, which uniformly spreads or deflects the flame and smoke outwardly against the walls of the enlargement B D, so that a considerable heat-radiating surface is obtained, which directs the heat both downwardly and upwardly, as well as outwardly. The removable inverted deflector C is supported by projections at its base upon the conical wall B, so as to leave a narrow annular space, a b, for the passage of the

flame and smoke into the chamber formed by the conical wall D. The rising products will then be spread outwardly below the cone C, and contracted above this cone, as indicated in the drawing by the arrows. The cone C is movable, for cleaning the pipe of soot, and extending diametrically across it is a bar, e, which serves as a handle, and also a stiffener. On top of the cone D, and surrounding the stove-pipe, is a horizontal shelf, G, which is constructed with a flange, G', that is perforated at g for allowing a free circulation of air beneath the shelf and through the flange. The object of the shelf is to support small articles which it may be desired to keep warm, and which would be in the way if placed upon the top of the stove. I thus utilize the stove-pipe as a support for such articles, and I also utilize a very large proportion of heat, which would be carried off into the chimney without the enlargement of the pipe.

I prefer in all cases to combine the shelf with the conical heater, but do not confine myself to this combination, as the heater may be used without the shelf.

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

In a stove-drum heater having the cones B and D, the removable inverted cone C and shelf G with the perforated flange G', substantially as described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

ORLANDO DEMIS SPALDING.

Witnesses:

JOHN S. BROWN,
ALFRED G. JAKES.