J. HEGER.

Heating Drum.

No. 102,119. Patented April 19, 1870.

FIG. 1

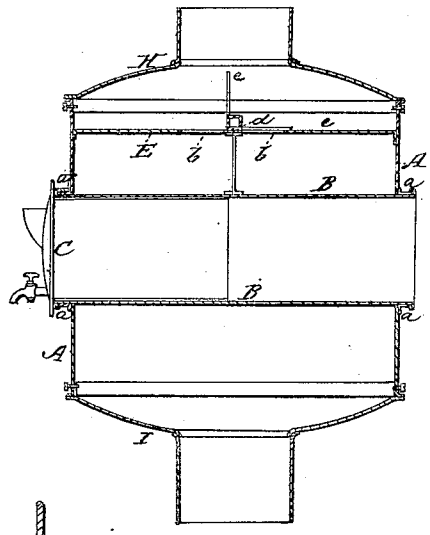


FIG. 2

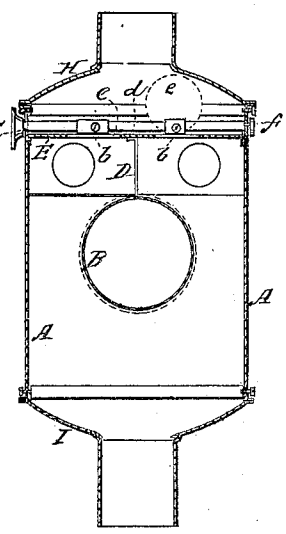


FIG. 5

FIG. 3.

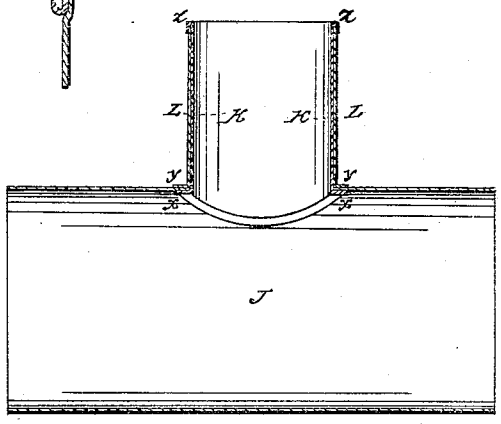
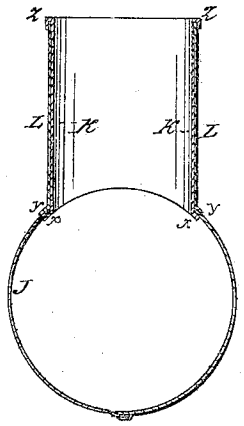


FIG. 4



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Atty

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JACOB HEGER, OF JEFFERSON, WISCONSIN.

Letters Patent No. 102,119, *dated April* 19, 1870.

STOVE-PIPE DRUM

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JACOB HEGER, of Jefferson, in the county of Jefferson and in the State of Wisconsin, have invented certain new and useful Improvements in Stove-Drums; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of a "stove-drum" with a cylinder through it, and in the manner of securing said cylinder to the drum, which mode may also be used in the construction of T-joints for pipes, as will be hereinafter set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, in which—

Figure 1 is a longitudinal vertical section of my stove-drum;

Figure 2 is a transverse vertical section of the same;

Figures 3 and 4 are sectional views of a T-joint; and

Figure 5 is a section of the seam for connecting two plates or the edges of the same plate.

A represents the body of the stove-drum made of sheet-iron or other suitable material of oval or any other desired shape.

Through openings or holes in said drum is inserted a cylinder, B, which is secured in the following manner:

The ends of the cylinder project beyond the sides of the drum, and a collar, *a*, placed on each end.

The inner end of the collar is bent outward, forming a flange which bears against the side of the drum, as shown in fig. 1, while the edge of the cylinder is bent over the outer edge of the collar *a*.

This being done on both ends of the cylinder, it is secured firmly in place.

Thus, when the cylinder B should become burned out, or otherwise damaged, it can be readily replaced at a trifling cost, by filing or otherwise removing the outer edge of one of the collars *a*, when the cylinder can be easily removed and a new one inserted.

The cylinder being constructed as above described, a boiler, C, can be inserted at one end for heating water, or the boiler removed and doors attached, whereby the cylinder is changed to a baking-oven, and can be used directly over the stove, or in the rooms above by connecting-pipes passing through the upper floor, thereby making a great saving in fuel, and at the same time perfectly neat and clean.

Above the cylinder B in the drum are placed plates or bars, D, in the shape of a cross having two openings, as shown in fig. 2.

These plates or cross-bars may at the option of the manufacturer be made of cast-iron or other suitable metal, molded so as to be but one piece.

On top of the cross-bars D is placed a plate, E, having two vent holes, *b b*, said plate being the exact size of the inside of the drum.

The damper-plates *e e* are attached in such a manner that the heat passing equally over each side of the cylinder is retained within the drum, and at the same time there will be a free current of air making a complete draught, and thereby obviates all the inconvenience and annoyance of smoke.

The draught-vents being only one-half the size commonly used, retain a much larger amount of heat.

The damper-key *d* is made of wrought-iron, or its equivalent, and is readily attached or detached from the drum by removing a pin which secured the knob G to the same, when the dampers can be easily removed for cleaning the internal arrangement of the drum, the other end of the key *d* working in a plate, *f*, secured to the drum.

The top H and bottom I of the drum can be readily cast in any pattern to suit the taste or convenience of the manufacturer, and attached to the drum by screws running through the drum into flanges of the castings H and I, as shown in figs. 1 and 2.

The same method as above described for securing the cylinder B to the drum A may be employed in making T-joints for pipes, as represented in figs. 3 and 4.

J represents the pipe having an opening in the side for the insertion of another pipe at right angles.

A short pipe, K, is placed in said opening, its inner edge being bent, as shown in figs. 3 and 4, so as to form a flange, *x*, inside of the pipe J.

Another pipe, L, is slipped over the pipe K, and its inner edge bent so as to form a flange, *y*, on the outside of the pipe J.

The outer edge *z* of the pipe K is then bent over the outer edge of the pipe L, the two being thus firmly secured to the pipe J, forming a T-joint.

In fig. 5 I have shown the seam by which the edges of the sheet-metal are joined together, so as to form the drum, cylinder, or pipes.

Having thus fully described my invention,

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

1. The method herein described of securing the cylinder B to the drum A by means of the collars *a a*, substantially in the manner and for the purposes herein set forth.

2. The arrangement within the drum A of the cyl-

inder B, cross-bars D, plate E, dampers *e e*, and damper-key, *d*, all substantially as shown and described.

3. The method herein described of securing the top and bottom to the body of a stove-drum by means of screws passing through the body of the drum into flanges on said top and bottom, substantially as herein set forth.

4. The method herein described of forming T-joints for pipes, substantially as set forth.

In testimony that I claim the foregoing, I have hereunto set my hand this 3d day of February, 1870.

JACOB HEGER.

Witnesses:

E. D. BUCKINGHAM,

B. L. SHOEPSTEIN.