

(No Model.)

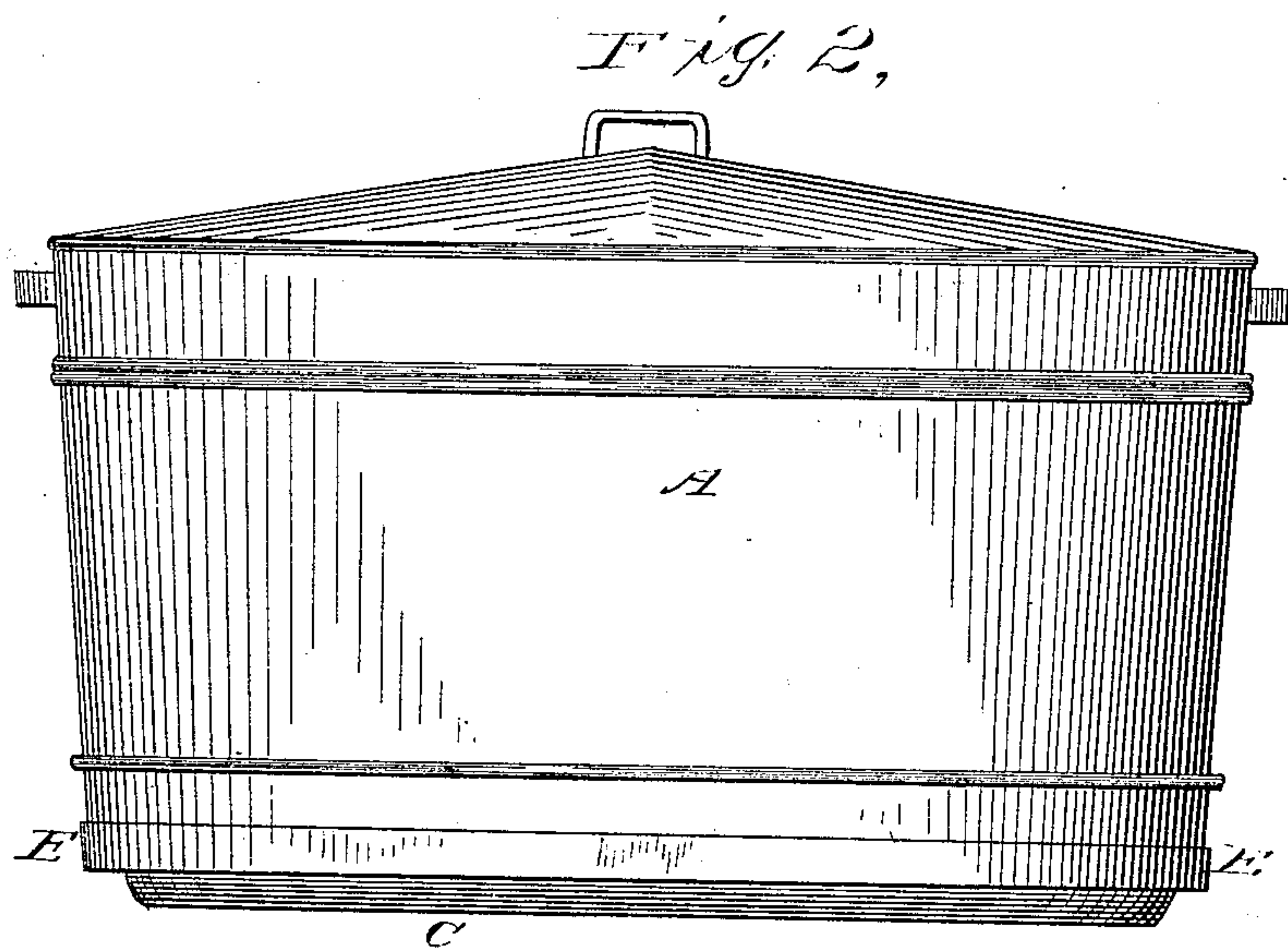
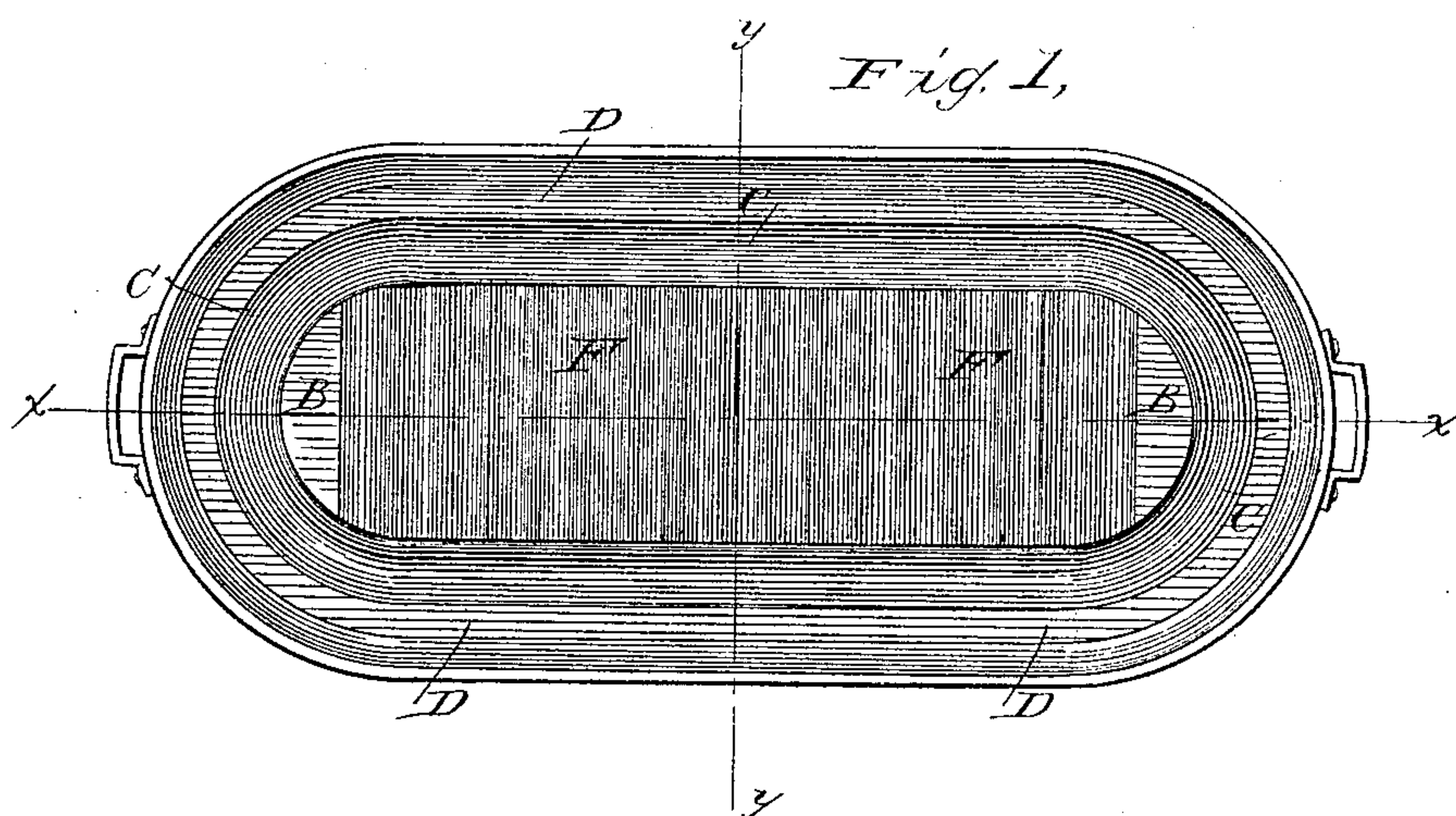
2 Sheets—Sheet 1.

J. J. JOHNSTON.

WASH BOILER.

No. 266,835.

Patented Oct. 31, 1882.



WITNESSES:

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Charles H. Bates

INVENTOR.

James J. Johnston

(No Model.)

2 Sheets—Sheet 2.

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Fig. 3,

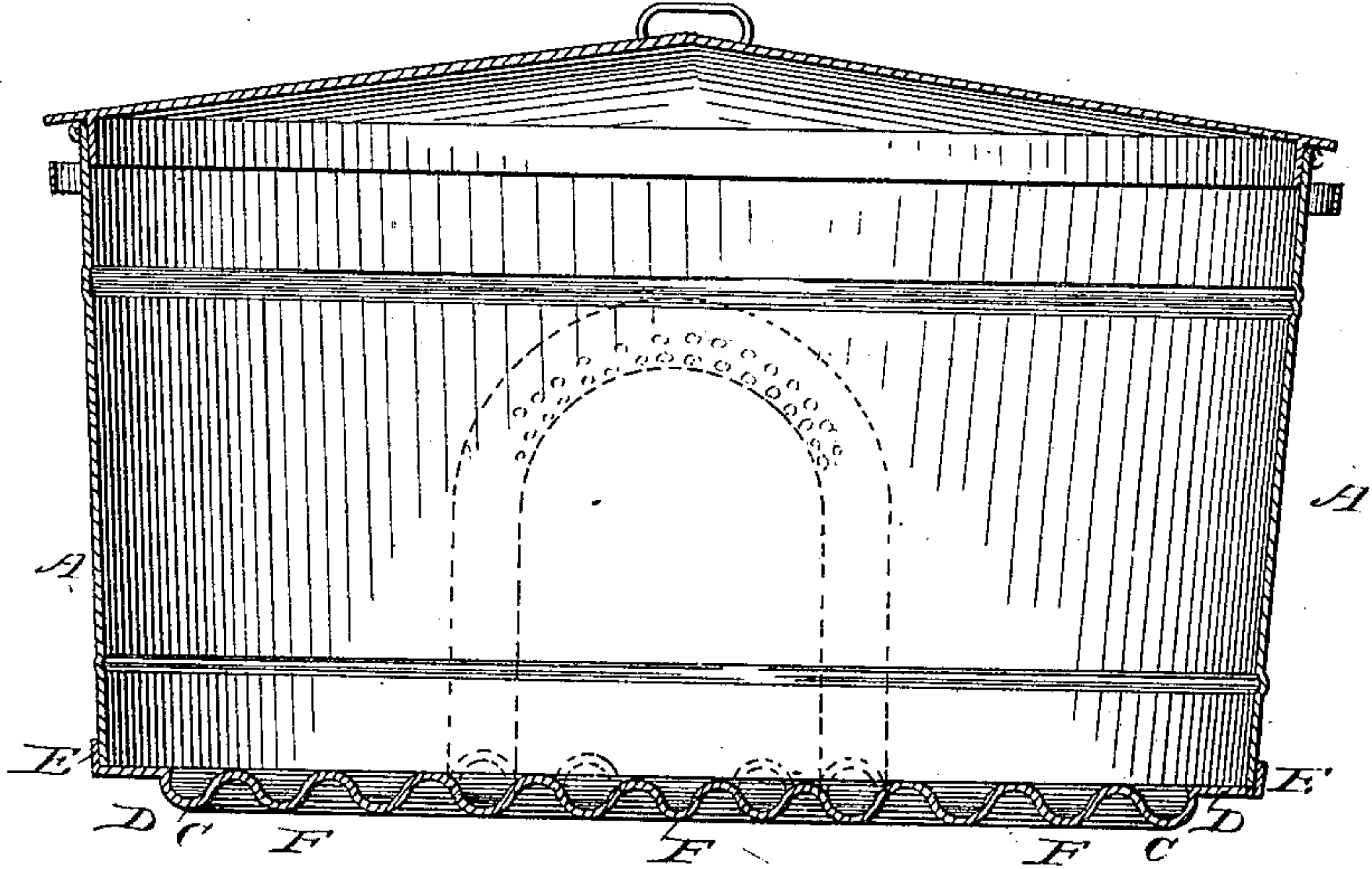


Fig. 4,

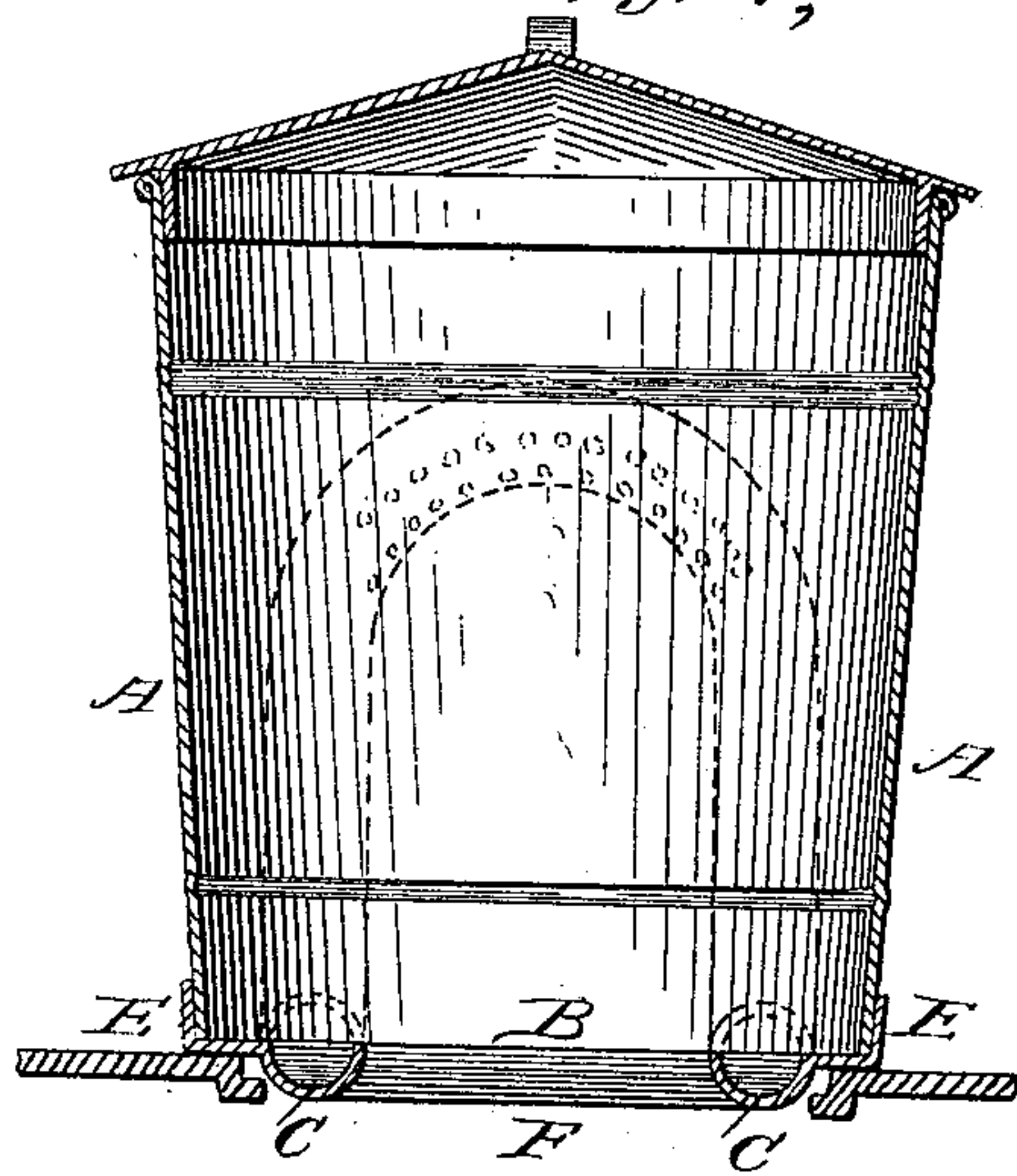
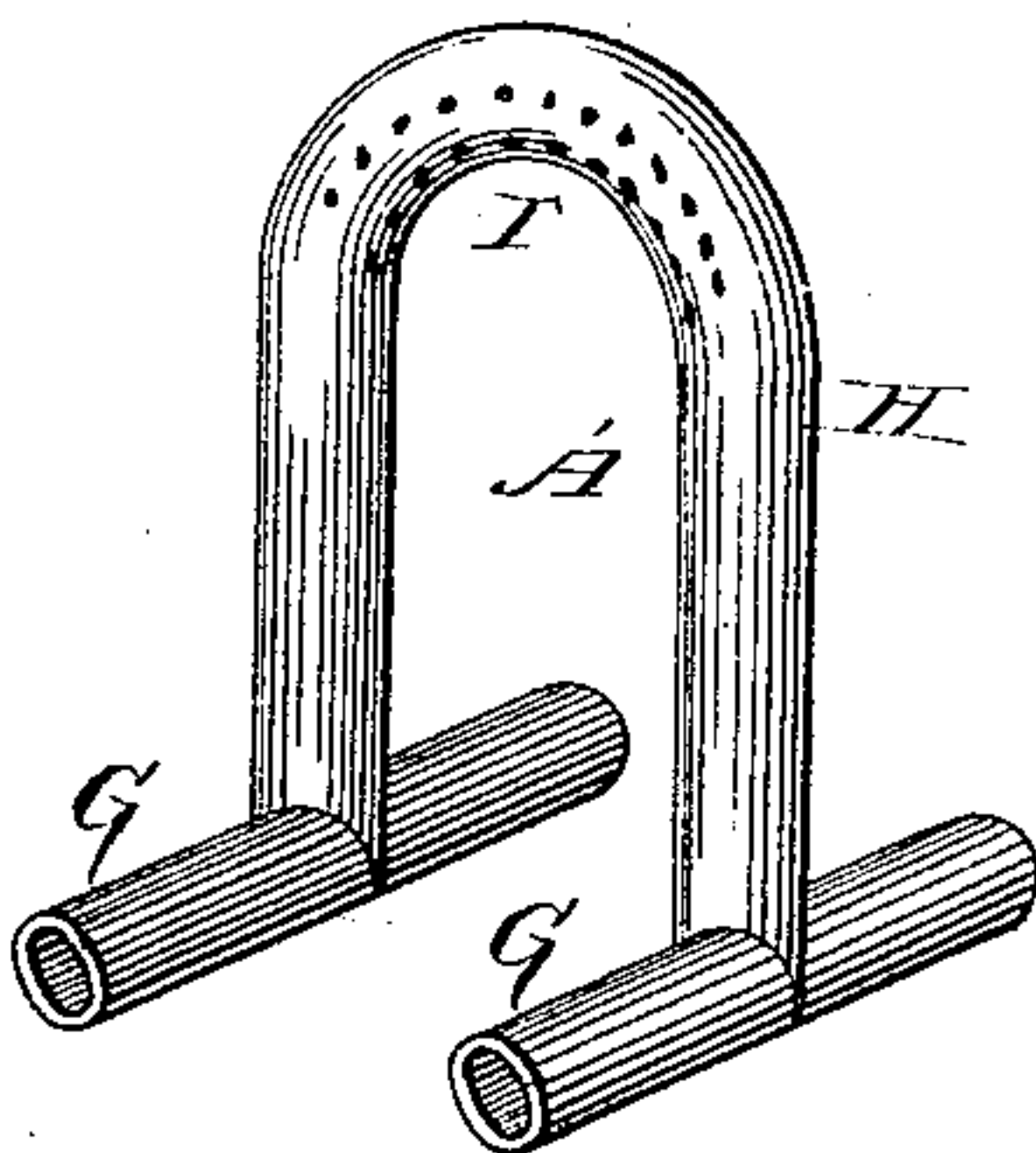


Fig. 5,



WITNESSES:

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UNITED STATES PATENT OFFICE.

JAMES J. JOHNSTON, OF COLUMBIANA, OHIO, ASSIGNOR TO THE UNITED STATES IMPROVEMENT COMPANY, (LIMITED,) OF SAME PLACE.

WASH-BOILER.

SPECIFICATION forming part of Letters Patent No. 266,835, dated October 31, 1882.

Application filed February 23, 1882. (No model.)

To all whom it may concern:

Be it known that I, JAMES J. JOHNSTON, of Columbiana, in the county of Columbiana and State of Ohio, have invented a certain new and
5 useful Improvement in Wash-Boilers; and I 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.

10 My invention relates to an improvement in wash-boilers; and it consists in making the bottom with a groove extending entirely around it, leaving a plane between the side walls of the boiler and said groove, and in forming a
15 series of transverse grooves which communicate with first-mentioned groove, and in combining with said grooves a water-distributor consisting of two horizontal and parallel pipes connected to a pipe forming a tubular arch
20 having a series of perforations therein, said horizontal and parallel pipes being adapted to fit in said grooves, all of which will hereinafter more fully and at large appear.

25 To enable others skilled in the art with which my invention is most nearly connected to make and use it, I will proceed to describe its construction and operation.

In the accompanying drawings, which form a part of this specification, Figure 1 is a top
30 view or plan of my improvement in wash-boilers. Fig. 2 is a side elevation of the same. Fig. 3 is a vertical and longitudinal section of the same at line *x x* of Fig. 1. Fig. 4 is a vertical and transverse section at line *y y* of Fig.
35 1. Fig. 5 is a perspective view of the water-distributor used in combination with my improvement in wash-boilers.

Reference being had to the accompanying drawings, A represents the body of the wash-
40 boiler, which is constructed in the usual manner and of the ordinary form and of sheet tin or copper. The bottom B is formed with a groove, C, extending entirely around the bottom, leaving a plane, D, between it and the
45 outer wall of the body A, the outer edge of said plane having a flange, E, for securing the bottom B to the body A. The bottom B is also furnished with transverse grooves F, which communicate with the groove C. The groove
50 C and the grooves F are formed by means of

dies, by what is known as the "stamping process," by which means several bottoms may be formed at a single operation. By having the groove C extending entirely around the bottom it will greatly strengthen it longitudinally, and will form a downward projection for entering the opening in the top of the stove and serving as a means for holding the boiler in proper position on the stove, as indicated in Fig. 4. The transverse grooves F, which communicate with groove C, give transverse strength to the bottom, and by the combination of the groove C and grooves F great stiffness and strength are secured in the bottom with increased heating-surface.

The water-distributor A' consists of two horizontal and parallel pipes, G, to which is attached an arched pipe, H, having in the arch a large number of perforations. Said water-distributor should be so constructed that its pipes G will rest in the groove C, as shown by dotted lines in Fig. 4, or rest in two of the grooves F, as shown by dotted lines in Fig. 3. By this means the water-distributor will be held in a fixed position in the boiler. The groove C and the grooves F, communicating with each other, will cause a longitudinal and transverse circulation of the water under the clothes in the boiling process, and thereby facilitate said process, and also avoid all liability of burning or scorching the clothes, so common to the ordinary boiler. The water-distributor A', (the office of which is well understood in connection with wash-boilers,) when combined with the groove C and the grooves F, will cause a thorough circulation of the boiling water among the clothes, and thereby greatly facilitate the process of boiling the clothes and assist in washing them.

I am aware that a water-distributor combined with a wash-boiler is well known, and I am also aware that bottoms for wash-boilers with transverse grooves and a plane is old, and therefore do not claim the said devices, broadly; but

What I do claim is—

1. In a wash-boiler, the bottom B, having groove C, extending entirely around it, with transverse grooves F communicating therewith, in combination with the water-distribu-

A', consisting of horizontal pipes G G and
ical curved pipe H, having perforations I.
l pipes G G adapted to fit in the groove C
ransverse grooves F, substantially as here-
efore described, and for the purpose set
h.

. In a wash-boiler, the bottom B, having a
ove, C, extending entirely around it, with

transverse grooves F, communicating there-
with, and plane D, substantially as herein de- 10
scribed, and for the purpose set forth.

JAMES J. JOHNSTON.

Witnesses:

T. D. D. OURAND,

FRED. G. DIETERICH.