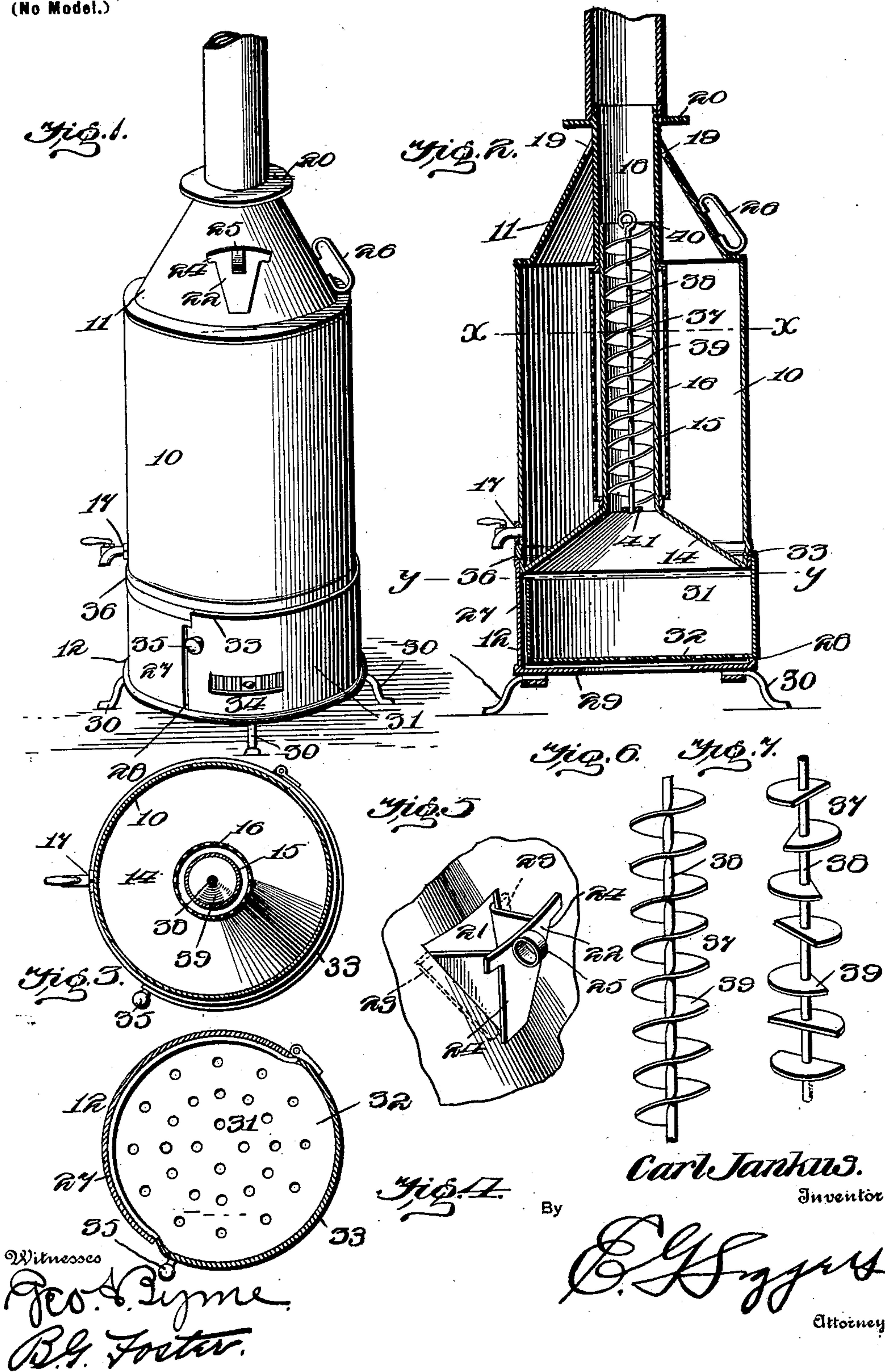


No. 665,658.

Patented Jan. 8, 1901.

C. JANKUS.
DOMESTIC BOILER.
(Application filed July 24, 1900.)

(No Model.)



UNITED STATES PATENT OFFICE.

CARL JANKUS, OF GUTHRIE, OKLAHOMA TERRITORY.

DOMESTIC BOILER.

SPECIFICATION forming part of Letters Patent No. 665,658, dated January 8, 1901.

Application filed July 24, 1900. Serial No. 24,689. (No model.)

To all whom it may concern:

Be it known that I, CARL JANKUS, a citizen of the United States, residing at Guthrie, in the county of Logan, Territory of Oklahoma, have invented a new and useful Domestic Boiler, of which the following is a specification.

This invention relates to improvements in domestic boilers; and the object thereof is to provide a simple device of this character especially adapted for cooking food, boiling water, or for any similar domestic use.

The particular object thereof is to provide a boiler having a comparatively large heating-surface with means for retaining the heated products of combustion in juxtaposition to said surface.

A further object is to protect the contents of the boiler from contact with said heating-surface.

In order that the invention may be fully understood, the preferred form is shown in the accompanying drawings and described in the following specification; but it is to be understood that the construction shown and described is capable of modification within the scope of the appended claims.

In the drawings, Figure 1 is a perspective view of the preferred form of domestic boiler. Fig. 2 is a longitudinal section of the same. Fig. 3 is a horizontal cross-section on the line *xx* of Fig. 2. Fig. 4 is a horizontal cross-section on the line *yy* of Fig. 2. Fig. 5 is a detail view of the boiler filler and closure. Fig. 6 is a detail view of the heat-retarder. Fig. 7 is a view of a modified form thereof.

Similar numerals of reference designate like and corresponding parts in each of the figures of the drawings.

The invention, as shown, comprises a boiler-body 10, having a removable cover 11 and a fire-chamber 12, arranged beneath the boiler-body and having a vertical flue passing centrally through the same.

The boiler-body 10 comprises a cylindrical casing having a conical bottom 14, from the apex of which extends the vertical flue or tube 15, that projects above the top edge of the body portion. Completely surrounding the central flue is the perforated guard-casing 16, which is spaced from the same and allows the free circulation of the liquid contents of

the boiler therethrough, but prevents the articles being cooked from coming in contact with the heated flue. A suitable opening 17 is provided through the lower portion of the wall of the body, by means of which liquid may be drawn therefrom.

Closing the open end of the boiler-body 10 is the cap 11, which is preferably conical in form and has a vertical flue-section 18 extending through the same and projecting above the apex thereof, the lower end of said flue being adapted to fit tightly over the projecting upper end of the flue 15, whereby a continuous flue is provided directly through the boiler. A plurality of openings 19 are arranged in the cap around the flue to allow the ready escape of the confined steam and vapors, and a horizontal deflecting-plate 20 is secured to the projecting end of the flue-section 18 and forms a protecting-cover over the openings 19 and a stop upon which a section of stovepipe or chimney is adapted to rest. Pivotally mounted upon the cover and arranged to work through a triangular filler-opening 21 in the same is the combined filler and closure 22, which consists of an inverted pyramidal-shaped body having one of its sides open and the side edges thereof bent outwardly to form stops or flanges 23, adapted to engage the inner wall of the cover when the filler is in operative position. The front of said filler is provided with similar flanges or stops 24, adapted to engage the outer wall of the cover, and the filler thus has a pivoted movement between these flanges. A suitable handle 25 is arranged on the front of the filler, whereby the same may be operated. A handle 26 is also arranged on the cover, by means of which it may be easily removed or placed in position upon the boiler-body.

The fire-chamber 12 comprises an outer cylindrical casing 27, having an opening 28 through its side wall and provided with a horizontal interior supporting-flange 29 along the lower edge thereof, to which are secured suitable legs 30. Detachably hinged upon the casing 27, at one edge of the opening 28, through which it is adapted to pass, is the fire-box 31, that comprises a cylindrical body adapted to fit snugly within the casing 27 and is provided with a perforated bottom 32, forming the grate. The front of this box has an

upwardly-projecting flange 33, which overlaps the upper edge of the outer casing and forms a tight joint therewith. A suitable damper 34 may be arranged in the front of the fire-box, and a handle 35 is provided, by means of which it may be swung out of the outer casing and removed for the purpose of cleaning. The lower end of the boiler-body 10 fits tightly within the outer casing 27 and is provided with a bead 36, forming a stop for the same.

In order to prevent the too rapid escape of the products of combustion and the consequent loss of heat, a heat-retarding device 37 is detachably secured within the flue 15. This heat-retarder essentially comprises a shaft 38, to which is secured a plurality of baffle-plates 39, the outer edges of which conform to and fit tightly against the inner walls of the flue. Two forms of these heat-retarders are shown—a continuous serpentine or screw flange arranged around the central shaft (shown in Fig. 6) and separate semicircular plates arranged alternately upon opposite sides of the shaft shown in Fig. 7, the upper ends of which are provided with suitable handles 40. A horizontal bar 41 extends across the bottom of the flue and holds the retarder in place.

When the heat-retarder is in place, as shown in Fig. 2, a tortuous passage is provided, through which the products of combustion must necessarily pass, and therefore the greater amount of heat contained in the same is given up before they finally escape.

From the above description it will be seen that a domestic boiler is provided in which the full benefit of the heat is secured and that may be easily taken apart for cleaning or repair. Furthermore, the heat-retarder serves as an efficient flue-cleaner, and it is only necessary to draw it from the flue in order to thoroughly remove the dirt and soot therefrom.

From the foregoing it is thought that the construction, operation, and many advantages of the herein-described invention will be apparent to those skilled in the art without further description, and it will be understood that changes in the size, shape, proportion, and minor details of construction may be resorted to and that the device may be used for a variety of purposes without departing from the spirit or sacrificing any of the advantages of the invention.

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

1. The combination with a fire-chamber open at its upper and lower ends and having a side opening, of a fire-box fitting snugly within the chamber, closing the side opening when in place and removable through said side opening, said fire-box having a bottom grate adapted to be arranged over the bottom opening of the fire-chamber, and a boiler detachably seated upon the upper open end of the fire-chamber.

2. In a domestic boiler, the combination with a fire-chamber comprising a circular casing open at its upper and lower ends and having a side opening, of a fire-box conforming in shape to and substantially coextensive in size with said chamber, said fire-box being connected at its periphery to the fire-chamber at one edge of the side opening and provided with a bottom grate adapted to be arranged above the bottom opening of the fire-chamber, and a boiler detachably seated upon the upper end of the chamber and having an upright smoke-flue passing through the same.

3. In a domestic boiler, the combination with a fire-box, of a boiler arranged above the fire-box and having its upper end open, a central flue extending through said boiler, a cover for the boiler having a flue-section adapted to aline with the boiler-flue and projecting above the cover, said cover being provided with vent-openings at its upper end around the flue-section, and a cap-plate arranged on the projecting end of said flue-section and projecting over the vent-openings in the cover, said cap also forming a stop for a pipe placed on said section.

4. In a domestic boiler, the combination with a fire-chamber comprising a casing open at its upper and lower ends and having a side opening, of a fire-box pivotally mounted upon said fire-chamber at one edge of the side opening, a boiler seated upon the upper end of said fire-chamber and having a conical bottom, a vertical central flue extending from the apex of the bottom through said boiler and having a stop at its lower end, a conical cover for said boiler having a flue-section adapted to aline with said boiler-flue and projecting above the cover and a heat-retarding device detachably mounted in the boiler-flue and arranged to rest upon the stop.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

CARL JANKUS.

Witnesses:

H. D. TODD,
A. ARZMUS.