

R. C. EHLERT.
PRESSURE COOKER.
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1,305,702.

Patented June 3, 1919.

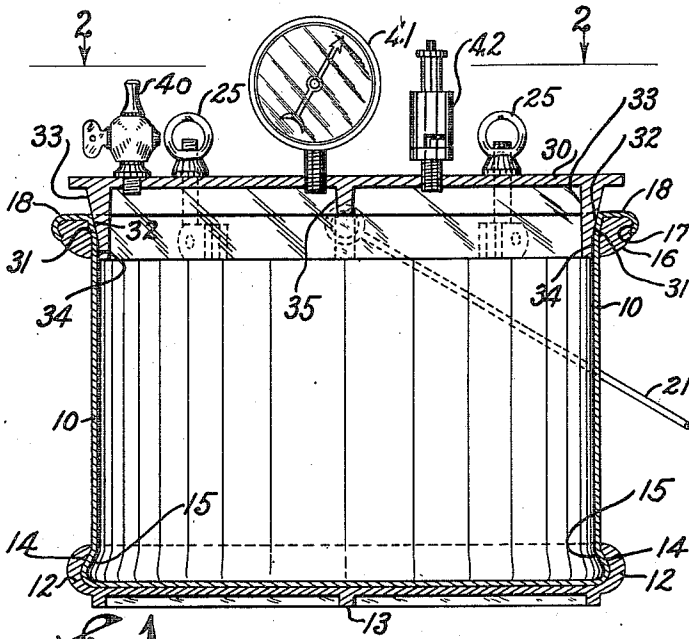


Fig. 1.

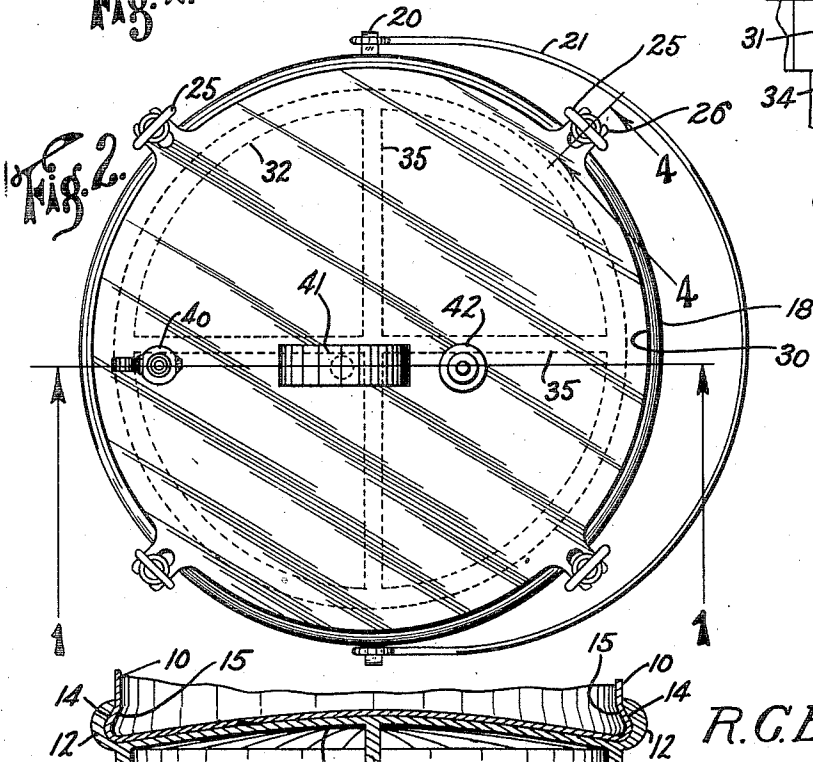


Fig. 2.

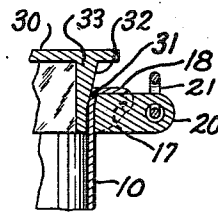


Fig. 3.

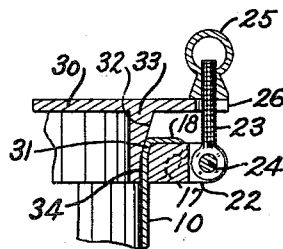


Fig. 4.

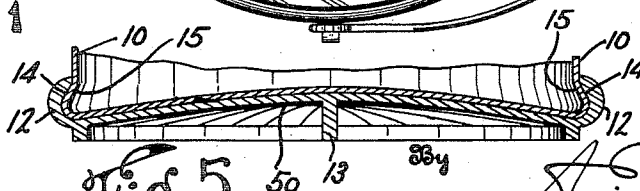


Fig. 5.

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PRESSURE-COOKER.

1,305,702.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ROBERT C. EHLERT, a citizen of the United States, residing in the city and county of Denver and State of Colorado, have invented certain new and useful Improvements in Pressure-Cookers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the characters of reference marked thereon, which form a part of this specification.

The object of the invention is to produce a pressure cooker which may be kept thoroughly clean and which may be manufactured at a low cost.

Heretofore, as far as the applicant is aware, pressure cookers have been made of cast metal, chiefly aluminum. But cast metal is somewhat porous and the pores in the inner walls gradually become filled with food particles which cannot be removed, at least by ordinary cleaning methods. If a cast kettle is cleaned as thoroughly as is possible, and clean water is then boiled in it, the water will become dirty.

Moreover, cast aluminum vessels must be finished inside by a process which is long and costly even where only a fair finish is obtained. Each vessel not only must be cast separately, but likewise it must be individually finished. This individual treatment required makes it impossible to reduce cost by quantity work.

All of these disadvantages are avoided by my present method and construction.

Briefly, the invention comprises stamping out of smooth plate aluminum a vessel with vertically straight sides. A reinforcing cast bottom of aluminum, having an undercut internal annular recess, is fitted to the bottom of the stamped vessel and the bottom of the vessel is rolled into this recess; this permanently secures the reinforcing cast bottom to the bottom of the vessel. The top or rim of the vessel is reinforced by a cast aluminum ring, secured on the outer side thereof, the top of the vessel being rolled over the ring and beneath the outer edge thereof, which also is undercut. A flat cast cover is adapted to be clamped in position.

With this construction, the interior of the vessel needs only to be buffed to remove

marks produced in stamping and assembling. This leaves the interior with a smooth substantially non-porous surface which will not take up food particles and which is easily cleaned. As the cast parts used do not present special difficulty in making and do not have to be carefully finished, the process is comparatively cheap.

In the drawings:

Figure 1 is a central vertical section, indicated by line 1—1 of Fig. 2.

Fig. 2 is a plan indicated by line 2—2 of Fig. 1.

Fig. 3 is a fragmentary section indicating the method of securing the bail.

Fig. 4 is a fragmentary section on line 4—4 of Fig. 2, showing the means for locking the cover in position.

Fig. 5 shows a modified bottom construction to be used particularly for large vessels.

The container 10 is stamped out of a single piece of plate aluminum and has vertically straight sides. While the circular shape makes the main portion of the vertical sides sufficiently strong, the rim of the vessel and the bottom require reinforcement.

For the bottom, a cast aluminum reinforcing member having an upstanding rim 12 and strengthening ribs 13 is provided. The rim 12 is formed with an internal annular groove or undercut channel, the upper portion 14 of the wall of which is frusto-conical. The vessel 10 is set into this reinforcing member and the side portion thereof adjacent the bottom is rolled into the channel or groove in the rim 12 as indicated at 15. By having the upper portion 14 of the channel wall frusto-conical, the bearing of the wall portion 15 of the container on the rim 12 is distributed over an appreciable area. This is not true of a construction where the channel or groove is continuously curved in its upper portion; in such case the pressure exerted by the bottom of the container on the reinforcing bottom is transmitted almost entirely at the edge of the rim 12.

The rim of the container 10 is reinforced by a ring 16, the outer portion of which is undercut slightly as shown at 17. The rim of the vessel is stamped or rolled about this ring and into the undercut part 17. This firmly secures the ring 16 about the upper portion of the container. Apertured lugs 20 are provided on the ring to receive

the bail 21, and pairs of ears 22 are provided at intervals between which are mounted threaded bolts 23, pivoted to the ears at 24. The bolts are provided with thumb
 5 nuts 25 by means of which they are secured in position between the bifurcated lugs 26 formed on the cover 30 to clamp the cover in operative position.

The top of the container has an internal
 10 bevel 31, which coöperates with bevel surface 32 on the annular depending flange 33 of the cover. Below the bevel portion 32 of the flange 33 there is a vertical portion 34 in the form of an extension of the flange 33,
 15 this part 34 being slightly smaller in diameter than the internal diameter of container 10 and constituting a guiding or centering member which prevents rocking of the cover when set in position. This assures a per-
 20 fect seal when thumb nuts 25 are tightened.

The cover is conveniently formed of cast aluminum since the food does not come into contact with it to fill the pores. In order to facilitate manufacture and aid finishing
 25 it is made flat, and this flat top also assists in accurately forming the flange 33. Reinforcing ribs 35 may be employed on the under side. The cover is drilled to receive

pet cock 40, pressure gage 41 and safety valve 42. 30

The reinforcing bottom member shown in Fig. 5 is to be used for larger vessels and in order to provide sufficient strength it is arched upward as shown at 50.

I claim: 35

1. In a pressure cooker, a container, a reinforcing bottom member on said container, said member having an internally grooved upstanding flange into which the inclosed
 40 portion of the container is expanded, a portion of the upper wall of the groove being frusto-conical in shape.

2. In a pressure cooker, a container, a reinforcing ring about the upper portion thereof, the upper part of the inner face of
 45 the ring being beveled upward and outward, the adjacent portion of the container being fitted thereto and correspondingly beveled, a cover for the container having a part beveled to engage the beveled portion of the
 50 container, and means on the ring and on the cover for coöperation to retain the cover in position.

In testimony whereof I affix my signature.

ROBERT C. EHLERT.