

July 9, 1946.

V. ZDANAİTIS

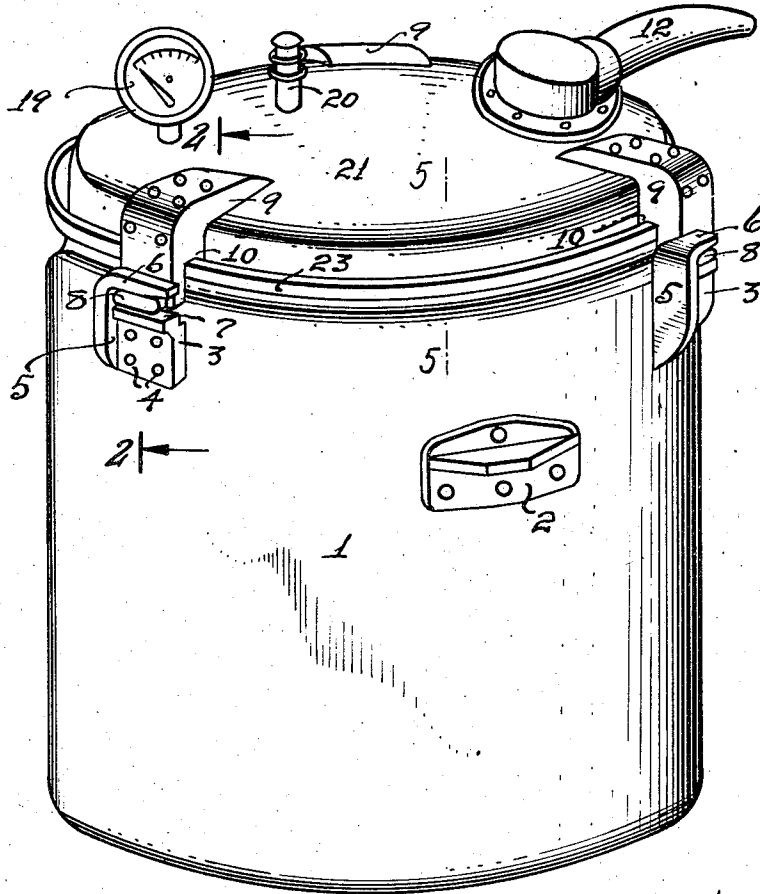
2,403,778

COVER SEALING MEANS FOR PRESSURE COOKERS

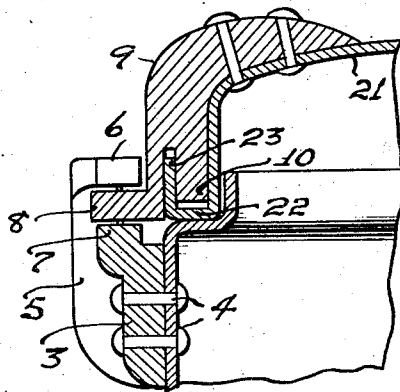
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2 Sheets-Sheet 1

FIS. 1.



FILE, 2.



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FIG. 3.

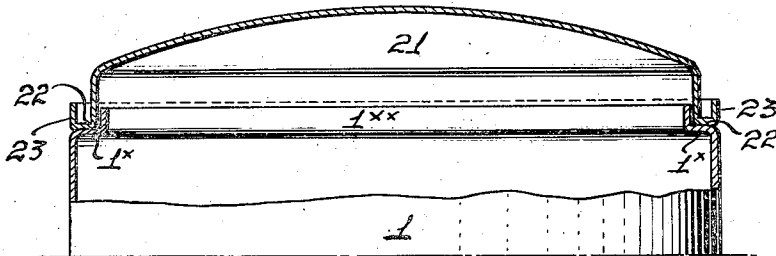


FIG. 4.

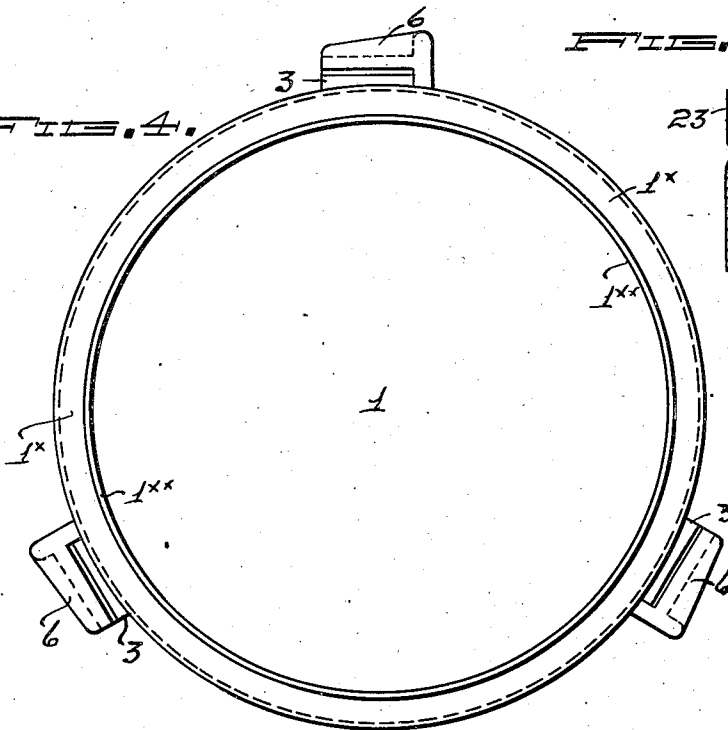
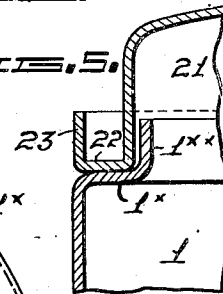


FIG. 5.



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COVER SEALING MEANS FOR PRESSURE COOKERS

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Application February 14, 1945, Serial No. 577,897

3 Claims. (Cl. 220-40)

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The present invention relates to a household type of pressure cookers, and it has for its object the provision of simple construction with secure sealing between the cover and the vessel proper by face to face metal contact without the necessity of gasket means, the contacting surfaces preferably having a yield or elastic factor, the structure further being characterized by wedge locking means for the cover of a type permitting firm sealing of the cover to the vessel by a short rotational movement of the cover given by means of a handle device which also forms an element of a pressure release device.

Further object of the invention will be set forth in this specification, with reference to the accompanying drawings, in which;

Fig. 1 is a perspective view of a pressure cooker embodying the invention.

Fig. 2 is an enlarged fragmentary vertical section, on the line 2-2 Fig. 1.

Fig. 3 is a fragmentary vertical section through the cover and the upper part of the vessel.

Fig. 4 is a top plan view of the vessel, with the cover removed.

Fig. 5 is a fragmentary sectional view taken on the line 5-5 Fig. 1.

Referring to the drawings it will be seen that the pressure cooker consists of a body member 1 which may be of any configuration, preferably annular, and which may be provided at its sides with handles such as the handle indicated at 2. The top of the body member is flanged inwardly to provide a substantially horizontal seat 1x which merges into a vertically extending flange 1xx.

On its upper outer face the body member 1 carries a plurality of lug-receiving members for the reception of lugs carried by the cover member. In the present embodiment three lug-receiving members are employed. Each lug-receiving member has a block-like body 3 which is welded or otherwise secured in position, rivets 4 being shown, and at its side an integral flange 5 carries a horizontally extending arm 6, the lower face of the latter being preferably tapered for wedging action. At the top of the block 3 is a seat or rest 7 for the appropriate locking-lug of the cover 21.

The cover carries three locking-lugs 8 in the present embodiment. Each lug 8 is integrally formed with a lug-hanger 9 which preferably is a forging which conforms to the rounded face of the cover, which embraces the lower flanged area of the cover, and which may have a tongue 10 lying within the peripheral channel of the cover.

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Although the lower edge of the tongue may contact with the metal at the base of the channel, I have shown it spaced therefrom in order that the entire periphery of the cover may have a yield factor for better sealing contact with the upper sealing seat 1x.

Secured to the top of the cover somewhat near the margin thereof is a block 11 formed with an aperture to receive a handle 12, the latter preferably being of low-heat conductivity, as for example, fibre. The cover also may carry a pressure-gage 19, and a safety blow-off valve 20, both of usual construction, these elements forming no part of the present invention.

The periphery of the cover 21 is formed with a horizontal flange 22 which merges into a short vertical flange 23, these flanges forming the cover channel-way which receives the tongues 10 of the cover hangers 9 which carry the locking lugs 8.

In the operation of the device, the cover is applied with the hangers and locking lugs at one side of the blocks 3 so that a clock-wise movement of the cover by means of handle 12 will carry the locking lugs under the horizontal, but tapered, wedge arms 6. In this action the wedge pressure of said arms upon the lugs 8 will force the annular horizontal face of the cover firmly down in sealing action with respect to the annular horizontal seat of the body member 1 without the necessity for a sealing ring surrounding flange 1xx and lying upon horizontal flange 1x, although a compressible sealing ring may be employed if desired.

In Fig. 2, and also in Fig. 5, certain elements which normally contact have been shown relatively spaced, as for example, the spacing between lug 8, seat 7 and arm 6 in Fig. 2. This is but for clarity of illustration. Also, in Fig. 2 I have shown lip 10 spaced from the bottom of the peripheral channel of the cover, and a space above vertical flange 23. While this is desirable to provide yield of the cover periphery at the lug hanger areas, the arrangement is not essential, and it will be understood that various modifications in form and arrangement of the elements constituting the embodiment illustrated in the drawings may be made without departing from the spirit of the invention.

Having described my invention, what I claim and desire to secure by Letters Patent is as follows:

1. A pressure cooker comprising a body member formed with a peripheral seat internally bounded by an upwardly extending flange, a

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cover member having a yielding periphery formed by a substantially horizontal flange merging into a vertical flange, a plurality of hangers carried by the cover member and embracing its peripheral flanged area, a plurality of blocks carried by the body member and adapted for registration with said hangers, and co-acting lug and lug-engaging members carried by the hangers and blocks, a handle being carried by the cover for rotation thereof.

2. A pressure cooker constructed in accordance with claim 1, in which each hanger is provided with a tongue projecting within a channel-way formed at the peripheral area of the cover by its flanges, the horizontal flange thereof extending outwardly and the vertical flange rising therefrom, the cover also being so proportioned that its inner peripheral face lies closely adjacent the upwardly extending flange of the body member, each hanger carrying an outwardly projected locking lug, the blocks carried by the body member each being formed with an arm overhanging the top of the block and spaced there-

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from and adapted to engage one of said locking lugs.

3. A pressure cooker comprising a body member formed at its top with an inwardly directed flange merging into an upwardly directed flange, a plurality of blocks carried by the body member below its top, each block carrying an arm overhanging a substantially horizontal seat at the top of the block, a cover member having a substantially horizontal outwardly-directed peripheral flange merging into a vertical flange, forming a channel-way at the periphery of the cover member, a plurality of hangers carried by the cover member and embracing its peripheral flanges, each hanger having a tongue extending downwardly into the cover channel-way, and each hanger having a locking lug adapted to be moved, when the cover is rotated, below and in contact with one of said arms, the arms and locking lugs being relatively tapered for wedging action, and a handle carried by the cover for rotation thereof.

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