

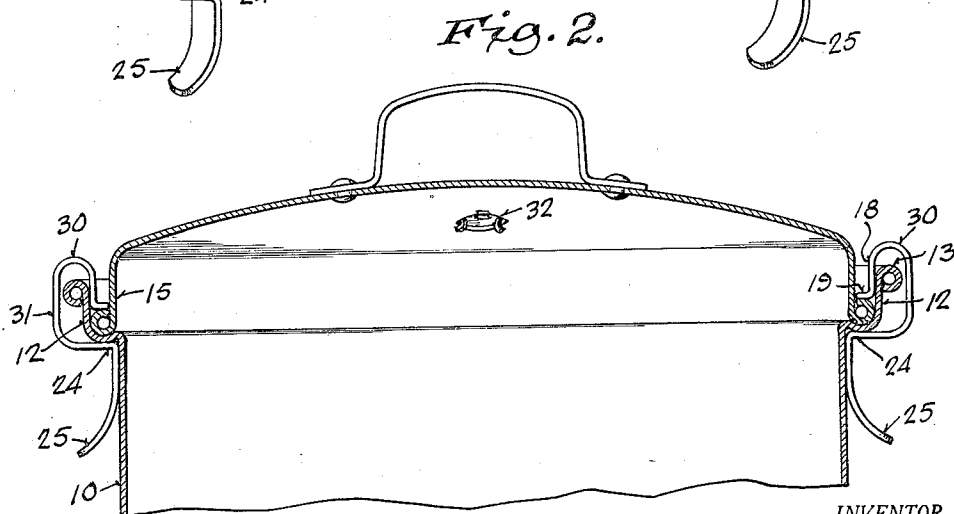
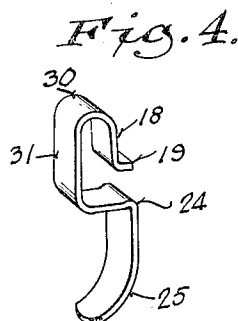
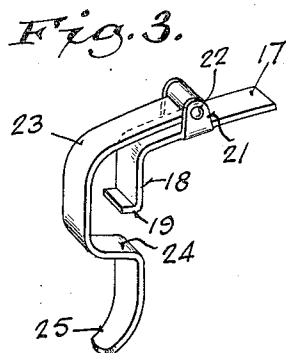
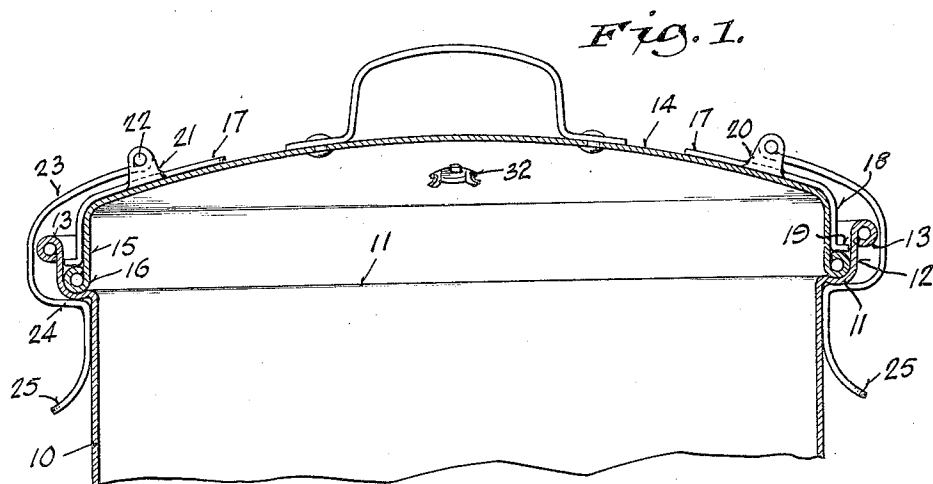
July 1, 1930.

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1,769,696

CLAMPING DEVICE FOR COVERS OF COOKING VESSELS

Filed Dec. 26, 1928



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UNITED STATES PATENT OFFICE

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CLAMPING DEVICE FOR COVERS OF COOKING VESSELS

Application filed December 26, 1928. Serial No. 328,448.

My invention relates to vessels used for cooking and for other purposes, to which a cover may be readily applied so as to complete the closure of the same, and as readily be removed therefrom, so as to give access to the contents of the vessel, or the placing of the same therein.

It resides in a clamping device adapted to securely fasten the cover upon the vessel, when it is desired to use the latter with the cover thereon, as in waterless cooking, in which it is highly beneficial to conserve the substantial properties of the vapors generated in cooking and prevent their escape into the atmosphere. The construction of the clamping device is such that when applied to its intended use, it is made to engage for the time being both the cover and the vessel and to effectively secure the cover in position upon the vessel. The clamping member is easily placed in clamping position, and as easily removed therefrom. It is constituted as a separate element, without permanent attachment to either the vessel or the cover, and may be laid aside when, in certain use of the vessel, the use of an unattached cover is sufficient.

In its practical operation, the clamping device is engaged with the upper surface of a portion of the cover, and with the under surface of a portion of the vessel, so as to effectively seal the parts in their meeting line.

Having thus outlined the nature and purposes of the invention, I will now describe specifically the illustrated embodiments thereof, and in the appended claims will point out the novel features residing in the invention.

In the accompanying drawing:

Figure 1 is a transverse vertical sectional view, on a line near the center, of the upper portion of a cooking vessel and its cover, with my improved clamping device applied thereto.

Fig. 2 is a similar view showing the employment of a modified form of clamping device.

Fig. 3 is a perspective view of the clamping device shown in Fig. 1.

Fig. 4 is a like view of the modified clamping device shown in Fig. 2.

In the drawing, the numeral 10 indicates a drawn or spun sheet metal vessel, broken out at its lower side to save space, the vertical side walls of which are out-turned at the upper end to provide a circular seat 11, and then up-turned for a short distance as at 12, the wall being preferably finished with a rolled rim 13, acting as a reinforcement for the open mouth of the vessel.

The cover 14, which may be formed in a similar manner, is provided with a depending circular wall 15, finished preferably at its lower edge by means of a roller bead 16, which is adapted to rest upon the circular seat 11 at the top of the vessel.

In the process of cooking according to what is now known as the "waterless" way, it is of material benefit to conserve the mineral and other beneficial properties of the articles being cooked, and which unless confined, will pass away in the vapors generated during the cooking operation. By securing a cover tightly in place upon the vessel, the vapors are not permitted to escape, but are condensed in their contact with the inside surface of the cover, and are caused to flow back into the vessel. This condensation contributes materially to the improvement of the flavor and food value of the articles being cooked.

The clamping device, by the use of which I am enabled in a very expeditious manner to secure the cover tightly upon the vessel, may be as illustrated in either Figs. 3 and 4, or otherwise, within the scope of my invention. In the form illustrated in Figs. 1 and 3, an elongated bearing plate 17 having a dependable leg 18 and a foot 19, is shaped so that the plate 17 and leg 18 will lie closely against the top margin of the cover and the outer surface of the depending wall 15, with the foot 19 resting upon the bead 16. At opposite points intermediate the ends of the plate 17, the latter is formed with two upstanding ears 20 and 21, which are pierced transversely for the reception of a pin 22. The pin 22 serves as a pivot for a hook member 23, extending outwardly and downwardly, so as to pass the bead 13 on the vessel, and

then bent inwardly so as to extend, as at 24, in the plane of the lower side of the seat 11 on the vessel. The hook member 23 is resilient and its in-turned end 24 is made to engage the vessel in the manner described with considerable pressure, by the action of the foot 19 upon the rim 16 and thus effectively seal the cover upon the vessel. From the point of its contact with the vessel, the end of the hook member 23 is bent so as to lie approximately parallel to the vertical wall of the vessel with which it contacts, and is then out-turned as at 25, so as to permit the disengagement of the parts to be easily effected.

In operation, as the vessel has been provided with articles to be cooked, the cover is placed thereon, and two or more of the clamping devices embodying my invention are applied to secure the cover upon the vessel. The plate 17 lies in a radius of the cover, and the foot 19 of the plate rests upon the bead 16, and substantially fills the space separating the up-standing wall 12 of the vessel and the depending wall 15 of the cover. The pivoted hook member 23, is then snapped into place, with the in-turned angular end 24 in engagement under the seat 11 of the vessel. It is preferable that the clamping members employed be spaced at points substantially equidistant about the circumference of the vessel. Outward pressure upon the lower ends 25 will disengage the hook members 23 upon the vessel. The clamping members can then be removed from position and the cover taken off from the vessel.

Figs. 2 and 4 present a simplification of my invention, in which the clamping member is constituted as a single part, instead of a two part construction, as in Figs. 1 and 3. The principle of operation, however, is the same as before. In its modified form, the foot 19 is extended inwardly, and the position of the leg 18 with relation to the cover is reversed so that the said leg, instead of bearing against the depending wall 15 of the cover, is caused to bear against the inside of the upstanding wall 12. The strip from which the clamping member shown in Figs. 2 and 4 is formed, is bent outwardly from the top of the leg 18, as at 30, so as to clear the bead 13 of the vessel, and then downwardly as at 31, and then in-turned to present the angular engaging end 24. The drawing illustrates the operation of the modified form, in which the foot and leg are entered into the space between the walls 12 and 15, after which the hook 24 of the clamping member is snapped into engagement with the underside of the seat 11 of the vessel, to thus secure the cover in position. In other respects the operations of the clamping members of different forms, are the same. The vessel may be provided with an automatically operated valve, indicated 32.

Preferably, the plate 17 and the hook mem-

bers of both forms of construction, are constructed from flat metal strips. In all of its forms the hook member is made from resilient material, in order that it may function properly.

Having thus described my invention, what I claim and desire to secure by Letters Patent of the United States, is:

1. A clamping device for a cooking utensil embodying a vessel and a cover for closing a vessel, and said clamping device comprising an unattached plate adapted to bear upon the cover of the vessel, and a resilient hook pivoted to the said plate and adapted to engage the vessel, whereby the clamping hook may yield in the operation of securing the cover upon the vessel.

2. A cooking vessel the upstanding wall of which is outturned to form a seat for a cover, and then continue upwardly to form a circular recess, and a cover having a depending wall resting in said recess and upon the said seat, in combination with an unattached resilient clamping device one part of which is entered in said recess and bears upon the cover and another part of which engages under the said seat to secure the cover in position upon the vessel, and whereby the clamping device may yield in the operation of securing the cover upon the vessel.

In testimony whereof, I have signed my name at West Bend, Wisconsin, this 13th day of December, 1928.

ALFRED C. KOCHER.