I. STEINBERG.

SAFETY COVER FOR CULINARY VESSELS.

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1,188,697.

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Fig. 1.

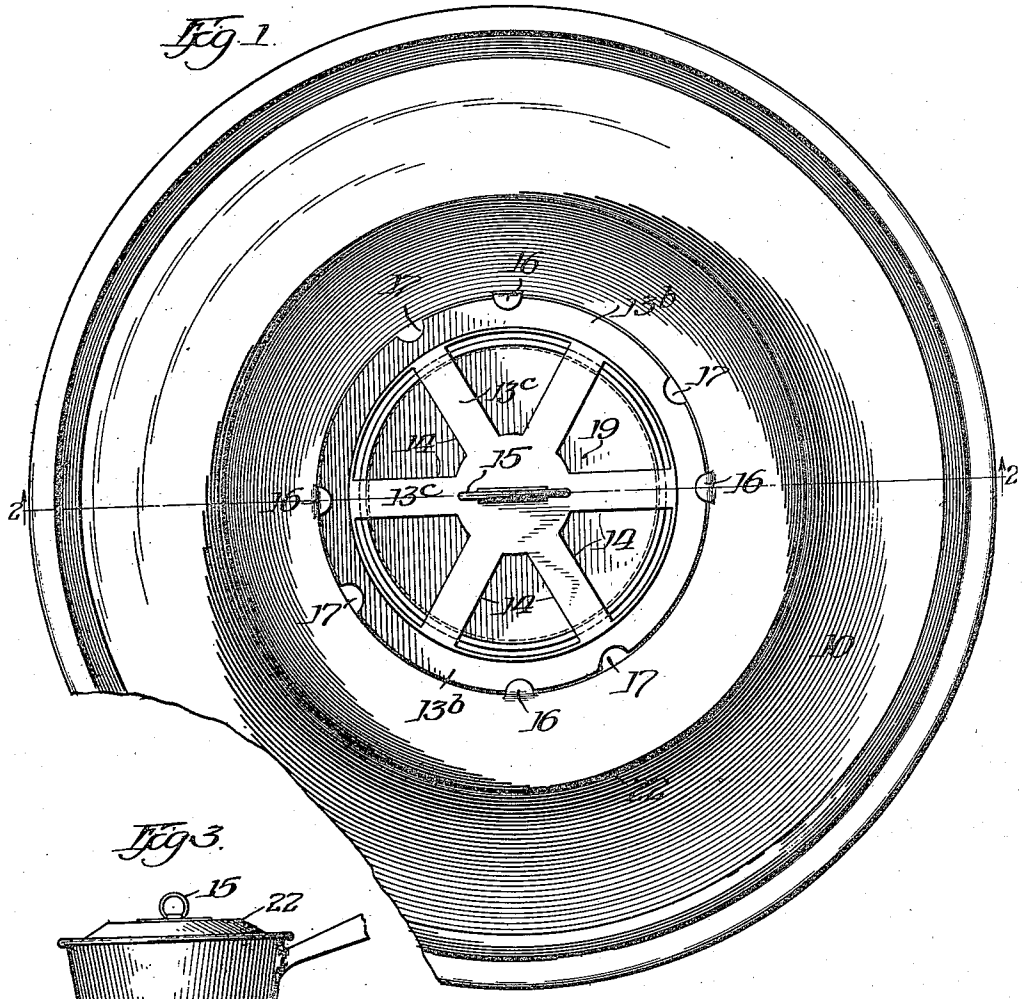
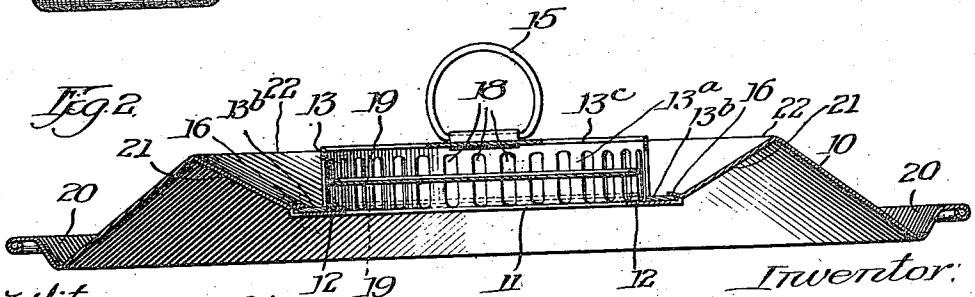


Fig. 3.

Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

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SAFETY-COVER FOR CULINARY VESSELS.

1,188,697. Specification of Letters Patent. Patented June 27, 1916.

Application filed January 23, 1915. Serial No. 3,887.

To all whom it may concern:

Be it known that I, ISRAEL STEINBERG, a citizen of the United States, and resident of Maywood, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Safety-Covers for Culinary Vessels, of which the following is a specification.

My invention relates to covers for culinary vessels, and more particularly to such as have safety provisions for the escape of steam therefrom. Its principal objects are to provide a cover of simple construction, durable, cleanly, within the limits of commercial manufacturing cost, which will last long in service, and which will effectively overcome the objection of "boiling over" due to excessive steam pressure within the vessel covered thereby.

A particular object of the present improvements is to provide a cover having the advantages set forth and in which the water of condensation collecting upon the cover while in use will automatically drain back into the cooking vessel, and will not, therefore, be objectionably discharged outside the vessel when the cover is removed during the cooking operation. In this last mentioned respect the present invention is an improvement upon that of my co-pending application, Serial No. 876,209, filed December 9, 1914, to which reference is made.

In the accompanying drawings, which form a part of this specification I have illustrated a preferred manner of carrying the present improvements into effect, Figure 1 being a fragmentary top plan of the cover; Fig. 2 being a transverse medial section of the same, as on the line 2—2 of Fig. 1, and Fig. 3 being a side view of the cover upon a cooking vessel, the scale being reduced.

In the illustrated embodiment of these improvements the cover proper 10 is provided with a relatively large central vent opening 11 defined by a flange-like portion 12 of the cover proper. Upon this flange-like portion 12 is removably secured the plate retaining element 13, comprising the upstanding side portion 13^a and the outwardly turned flanges 13^b adapted to rest upon the flange-like portion 12, the top of the plate retaining element 13 preferably also having openings, as 14, which are provided by the radially arranged arms 13^c. A lifting element, as the ring 15, may be secured to what is normally the top of the element 13 in any approved way. A plurality of ears, as 16, are stamped up from the cover proper 10, and by the provision of a plurality of recesses, as 17, in the flange 13^b adapted to register with the stamped up ears 16 respectively, it will be apparent that the element 13 may be removably locked upon the cover proper 10 by bringing the projections 16 and recesses 17 into registration with each other respectively and moving the cover proper and the plate-retaining element 13 relatively to each other to a slight extent. The separability of these parts is advantageous from the standpoint of cleanliness.

The side 13^a of the element 13 is preferably provided with a plurality of vent openings, as 18, which preferably extend to what is normally the top of the out-turned flange 13^b. Within the plate-retaining element 13 is the plate 19, shown in full lines in raised position and in dotted lines in its lowermost position in Fig. 2. This plate 19 resting upon the flange-like portion 12 effectively closes the vent opening 11 when the device is in use until the steam pressure within the cooking vessel becomes great enough to raise the plate 19, permitting escape of the steam and preventing the contents of the vessel from boiling over. When the pressure is relieved the plate automatically again covers the vent opening 11, inducing further boiling.

Over my said co-pending application the principal improvement in this application set forth is in the provision of means adapted to prevent the accumulation of the water of condensation upon the cover proper, as in the annular groove 20, from which such water would be spilled over the stove or floor when the cover is lifted away from the vessel during a cooking operation. To this end I form the cover proper 10 with a pocket or cup-shaped portion about the vent opening, as 11, and preferably by forming the declining wall 21 bounded by the annular ridge 22 at the top and terminating at the bottom in a slight depression whereby the top of the flange 13^b is substantially on a level with the lowermost edge of the slanting wall 21 when the cover is in its operative position. As steam escapes through the openings 18 beneath the raised plate 19 it is discharged against the wall 21 where considerable condensation takes place, and the moisture there accumulating runs down to

and upon the flange 13^b and thence through the openings 18, the intermittent rising of the plate 19 facilitating its discharge through the opening 11 and thus back into the cooking vessel. The present construction is advantageous also in inducing the condensation of considerable steam vapor, and in resupplying the cooking vessel with much of the water thus constantly passing off.

The cover proper 10, the plate-retaining element 13, and the plate 19 may be stamped from the ordinary tin plate of commerce in ways well understood in the mechanic arts.

These improvements are capable of modification within the spirit of the invention, and I contemplate all such changes as fall within the scope of the appended claims.

I claim:

1. The combination of a cover proper for a culinary vessel, said cover proper having a substantially large opening centrally thereof and having an annular ridge surrounding said opening, said ridge being intermediate said opening and the outer edge of said cover proper, an annular band-like element upstanding from said cover proper, said band-like element surrounding said opening and being surrounded by said ridge, a plate-like closure within said band-like element and adapted to cover said opening and to rise and fall between the walls of said band-like element, said band-like element having openings therein toward said ridge, the arrangement being such that when said cover is normally on a vessel and steam is generated therein said plate-like closure will rise and such steam will issue from the openings in said band-like element and against said ridge and the water of condensation will flow back from said ridge into the central opening.

2. The combination of a cover proper for a culinary vessel, said cover proper having a cup-shaped portion and a vent opening in said cup-shaped portion, a plate adapted substantially to cover and seal said opening, means for loosely holding said plate to rise and fall and thus to open and close said vent opening when the device is normally in use, said cup-shaped portion being adapted to collect water of vapor condensation and conduct same to said vent opening when the device is normally in use.

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