

PATENT SPECIFICATION



154,159

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COMPLETE SPECIFICATION.

Means for Preventing the Boiling-over of Liquids.

We, the BING-WERKE, vorm. GEBRÜDER BING A.G., of No. 16, Blumenstrasse, Nuremberg, Bavaria, Germany, a firm registered under the German laws, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

10 This invention relates to a device for preventing the boiling over of liquids and is more particularly designed for use in boiling milk, coffee, cocoa and similar liquids in which a skin is formed upon the surface of the liquid during heating.

15 In accordance with the invention the bottom of a cooking pot and/or a disc to be inserted therein is constructed to form fluid channels or narrow passages between the disc and the bottom of the pot in which the liquid is rapidly heated and evaporated, the disc having cut away portions from which heated liquid or steam bubbles flow out to form streams which strike the skin upon the surface of the liquid from below.

20 A temperature of 80° C. is sufficient in most cases to finish the boiling of liquids. The partial bubbling action will take place when the entire quantity of liquid has approximately an average temperature of 80° C. From this moment the supply of heat can be reduced wherefrom results a considerable economy of fuel. The vivid bubbling effect is maintained although the supply of heat is greatly reduced.

30 In order that the invention may be clearly understood, we will proceed to describe the same with reference to the example of construction shown in the accompanying drawings, wherein:—

40 Fig. 1 is a cross section through the cooking pot with disk inserted and

Fig. 2 is a plan view of the same.

45 The bottom of the cooking pot *a* has annular ribs *b* of undulated cross section and grooves *c* between said ribs with which correspond the ribs *d* and grooves *e* of the disk *f* to be inserted. In the flat channels *k* formed between the ribs *c* of the bottom and the corresponding ribs *e* of the disk *f* a very rapid heating and evaporating of the liquid takes place. The disk *f* to be inserted has three radially arranged slots *g*, *h*, *i*. The strongly heated liquid and the steam flow out through these indentations of the disk *f* and flow, in the form of locally separated hot sources, upwards through the liquid which has not yet been brought up to the boiling point and destroy the skin, whereby the boiling over is securely prevented. In many cases it is sufficient to insert the disk in an ordinary cooking vessel, provided flat channels are formed in the manner described hereinbefore. There could further be used a flat smooth disk in connection with a cooking pot with ribs and grooves upon the outer surface of its bottom. The disk to be inserted has at its center an eye *l* or the like to facilitate the removal of the disk from the cooking pot.

75 Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—

1. A cooking pot for preventing the boiling over of liquids wherein the bottom of the pot and/or a disc to be inserted therein are constructed to form flat channels or narrow passages between the bottom of the pot and the disc in which the liquid is rapidly heated and evaporated, said disc having cut away

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portions through which heated liquid or steam bubbles flow out to form streams which strike the skin upon the surface of the liquid from below.

2. A disc to be inserted in a cooking pot for preventing the boiling over of liquids, provided with ribs and grooves,

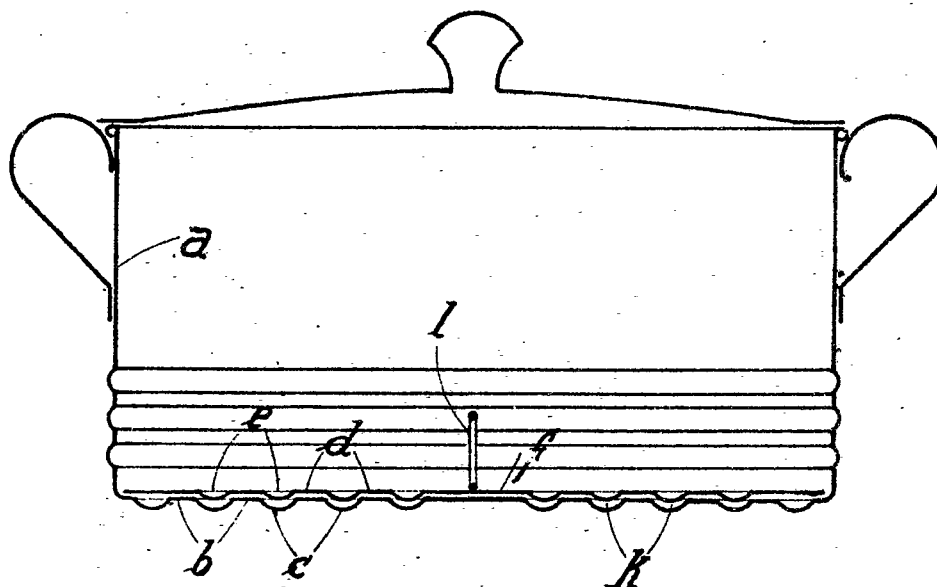
and provided with cut away portions at its edge.

Dated this 18th day of November, 1920. 10

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Fig. 1.*Fig. 2.*