

## TEA KETTLE PATENT DESCRIPTION

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402,190

Richard Newey, deceased, late of 71, line 2—2, Figure 1.  
Livingstone Road, Kings Heath, Birmingham) and FREDERICK CHARLES MOORE  
BLOOMER, a British Subject, of 40, School  
5 Road, Hali Green, Birmingham, 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:—

This invention relates to kettles, saucepans and similar water-boiling utensils of the quick-boiling type, in which the bottom is provided with a shallow heating chamber having water-circulating communication with the body of the utensil through a series of perforations formed in the crown of the said heating chamber.

According to the present invention, the bottom of a utensil of the type referred to is provided with an annular external skirt which is curved inwardly underneath the edge of the said bottom and not only serves as a stand for elevating the utensil from the source of heat in a stove or the like, but also forms a heat-trap cavity or chambering into which the flame or hot gases or hot air ascending from the heat-source are constrained to pass, and to be thereby directed against, or be made to effectually impinge upon, the edge regions of the utensil bottom. A more uniform or efficient distribution of heat over the whole of the bottom is thus realized, and the contents of a kettle or utensil so provided can be brought to the boil quicker than is the case with an ordinary kettle or utensil where there is no such provision for detaining flame or hot gas or hot air at the edge regions of its bottom.

Preferably the actual bottom of the kettle is formed with a comparatively-deep annular channel or gutter which is enclosed or contained within the said skirting and provides an increased area of heating surface for the trapped flame, gas or air to play upon.

Further, the skirt may be pierced with a system of perforations which constitute vents for the eventual escape of flame or hot air or hot gases, and may also, when the utensil is being used on a gas burner, serve to admit air into the annular cavity to enable the complete combustion therein of any unburnt gas that may pass into the said cavity.

Two applications of the invention are shown in the accompanying drawings, wherein:—

Fig. 1 is a part sectional elevation of a quick-boiling kettle constructed according to one application of the invention.

Figure 2 is a section on the dotted line 2—2, Figure 1.

Figure 3 is a part sectional elevation of a modified or alternative construction of a quick-boiling kettle, and

Figure 4 is a section on the line 4—4, 70 Figure 3.

As shown in Figures 1 and 2 of the said drawings, the bottom of the kettle is provided with a shallow heating chamber *c* formed between the bottom *a* of the kettle and an inner partition plate *b*. The bottom *a* is provided with a series of concentric corrugations *a*<sup>1</sup> and is constructed with a comparatively deep annular channel or gutter *a*<sup>2</sup> which increases the heating surface in relation to the diameter of the said bottom. The body *d* of the kettle is provided adjacent its bottom, with a peripheral heading *d*<sup>1</sup> whereby an annular skirt *d*<sup>2</sup> is secured below the utensil. This skirt is curved inwardly below, but is spaced from, the outside of the channel *a*<sup>2</sup> and forms a stand for the kettle and also constitutes a heat-trapping cavity or chambering already described. The skirting is provided with a system of perforations at *d*<sup>3</sup> for the purpose or purposes also already described.

The partition *b* within the body *d* is provided with a central aperture *b*<sup>1</sup> and with one or more perforations *b*<sup>2</sup> which make water-circulating communication between the said chamber *c* and the interior of the body *d*. The edge of the partition *b* immediately below the kettle spout *e* is cut away at *b*<sup>3</sup> to enable the heating chamber to be drained when pouring out the contents of the kettle.

In the alternative construction shown in Figures 3 and 4, the annular plate *b* is so located inside the body *d* as to leave the centre of the bottom *a* exposed to the interior of the said body *d* and form an annular heating chamber *c* which is isolated from the interior of the body *d* except for the perforations *b*<sup>1</sup> in the crown and the draining aperture *b*<sup>3</sup> below the spout *e*.

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 kettle or other water-heating utensil of the type referred to, wherein the bottom is provided with an inwardly-curved external skirt which provides an annular cavity or chambering underneath the edge regions of the said bottom, substantially as and for the purposes herein described.

2. A kettle or similar utensil according to Claim 1, wherein the bottom is provided with an annular channel or gutter