L. R. KRAMER.

BOTTOM PROTECTOR FOR WASHBOILERS AND CULINARY VESSELS.

APPLICATION FILED SEPT. 5, 1919.

1,375,158. Patented Apr. 19, 1921.

Fig. 1.

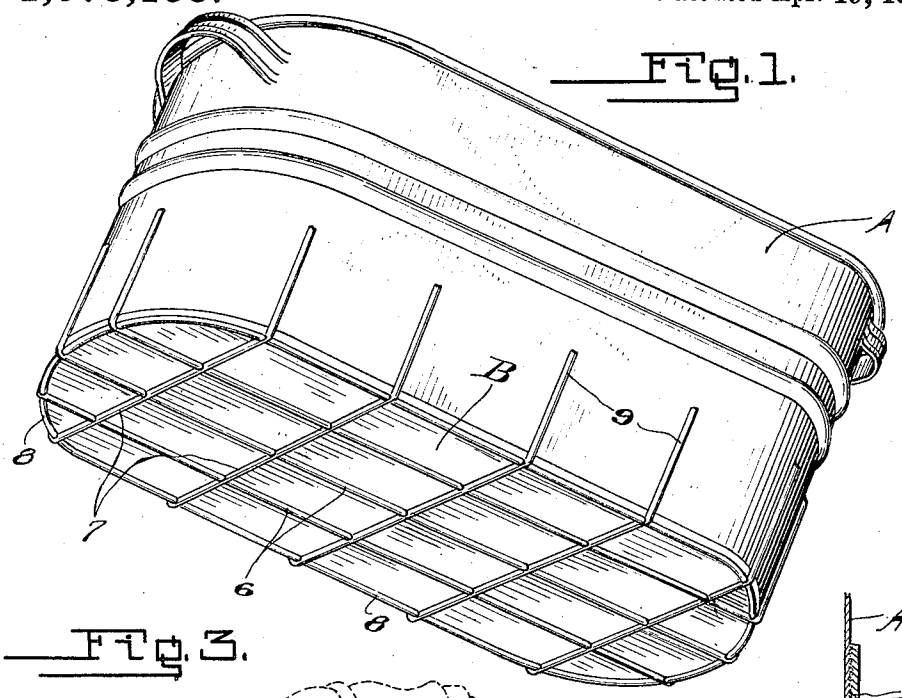


Fig. 3.

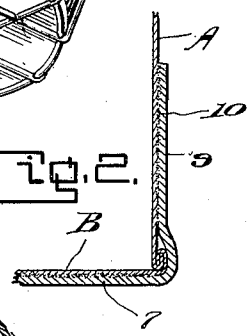


Fig. 2.

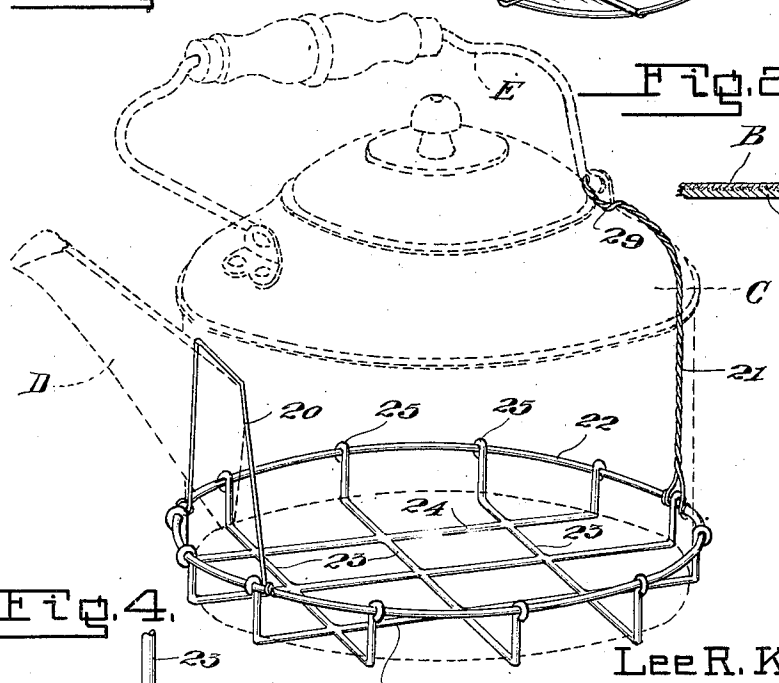
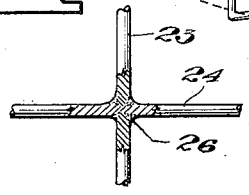


Fig. 4.



Inventor

Lee R. Kramer

By Lancaster Allwine & Rommel

Attorneys

UNITED STATES PATENT OFFICE.

LEE R. KRAMER, OF KEWANEE, ILLINOIS.

BOTTOM-PROTECTOR FOR WASHBOILERS AND CULINARY VESSELS.

1,375,158. Specification of Letters Patent. **Patented Apr. 19, 1921.**

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To all whom it may concern:

Be it known that I, LEE R. KRAMER, a citizen of the United States, residing at Kewanee, in the county of Henry and State of Illinois, have invented certain new and useful Improvements in Bottom-Protectors for Washboilers and Culinary Utensils, of which the following is a specification.

This invention relates to protectors for the bottoms of wash boilers, cooking utensils, such as tea kettles, sauce pans or the like, which will protect the bottom of the utensils from wear, when drawn over the top of a stove, which will reinforce the bottoms of the utensils, relieving them of the weight of the contents of the utensils, and consequently eliminating the buckling of the bottoms and the resulting cracking thereof, and also, in cases where the utensils are employed for cooking food stuffs, will form air spaces between the hot surface of the stove and the bottoms of the pan, eliminating to a material extent the liability of burning of the contents of the utensil.

In the manufacture of wash boilers and cooking utensils, relatively thin sheet metal, such as copper, tin or the like, is utilized for constructing the bottoms thereof, and consequently the bottoms soon wear, the metal buckles and cracks, causing leaks, which either necessitates the repairing of the utensils, or their discarding, and an object of this invention is to provide a protector, which will eliminate, to a material extent, the wear upon the utensil, and overcome the inconveniences above enumerated.

A further object of the invention is to provide a protector, for wash boilers or cooking utensils, which comprises a mesh work protector, soldered or otherwise suitably attached to the under surface of the bottom of the utensil, such as by electric welding, which mesh work protector has a plurality of lengths of the wire of which it is formed extending upwardly along the sides of the utensil and attached thereto, in any suitable manner, to relieve the bottom and seam of the utensil of the weight of the contents thereof, which is particularly desirable in wash boilers, in that the weight of the water and clothes therein tends to buckle or bend the relatively thin bottom of the wash boiler, and when it is placed upon the stove or upon a support, this bent or bulged portion of the bottom is bent inwardly, flexing the bottom, and this constant flexing of the bottom, due to use of the boiler hardens the metal and weakens it as well, causing it to crack, and necessitating repairs to the boiler or its being discarded for a new one.

Other objects of the invention will appear in the following detailed description taken in connection with the accompanying drawings, forming a part of this specification, and in which drawings:

Figure 1 is a perspective view of the wash boiler, showing the improved protector attached thereto.

Fig. 2 is a fragmentary section through the boiler, illustrating the manner of attaching the protector to the boiler.

Fig. 3 is a detail perspective view of a protector which is adapted for detachable connection, with a cooking utensil, and

Fig. 4 is a detail view partly in section illustrating the manner of connecting the cross wires of the protector illustrated in Fig. 3.

Referring more particularly to the drawings, the wash boiler A is of any approved construction, and it is reinforced by the improved protector 5, which is made up of a plurality of lengths of wire 6 extending longitudinally of the bottom B of the boiler, and lengths 7 which extend laterally of the bottom B of the boiler, and are attached to the longitudinally extending wires 6 in any suitable manner such as by electric welding, or any other method employed in forming wire mesh work. The length 8 of wire extends around the edge of the bottom B of the boiler A, and it is likewise soldered or welded to the bottom of the boiler, and to the lateral and longitudinally extending lengths of wire 7 and 6 respectively. The lateral lengths of wire 7 have their end portions 9 extended over the edge of the bottom B, of the boiler or utensil A, and soldered to the sides of the boiler or utensil A or welded thereto by electric welding or the like, as indicated at 10. These lengths 9 extending along and being attached to the sides of the body of the utensil A will force these sides to assist in supporting the load carried by the utensil, and they in connection with the reinforcement of the bottom formed by the longitudinal and lateral lengths 6 and 7 of wire, will prevent the flexing of the bottom, and the wear which would be caused by the dragging of the boiler or utensil over a stove will be taken

up by these lengths of wire preventing the wearing of the bottom of the utensil, and thereby materially increasing the longevity of the boiler or utensil, and reducing to a minimum, the necessity of repairs.

In Figs. 3 and 4 of the drawings, a bottom protector for utensils which are made of aluminum and analogous material is illustrated, this protector being attached or connected to the utensil by spring wire fastening members, 20 and 21, which are attached to the upper encircling length of wire 22 of the protector structure. This encircling length of wire 22 is connected to the laterally and longitudinally extending lengths of wire 23 and 24 respectively, by the rolling of the ends of these longitudinal and lateral extending wires about the encircling wire as shown at 25. As clearly shown in the drawings, the portions of the lateral and longitudinally extending wires 23 and 24 are bent upwardly to position their upper ends, and consequently the encircling wire 22 in the plane above the plane of a portion of the protector which engages the bottom of the utensil, indicated at C in dotted lines in Fig. 3. The longitudinal and lateral wires 24 and 22 respectively are welded, such as by electric welding at their crossing portions, as shown at 26, in Fig. 4 of the drawings. In Fig. 3 of the drawings, the modified form of the protector is illustrated as applied to a teakettle C, and the attaching wire 20 is substantially U-shaped being adapted to engage over the spout D, while the attaching wire 21 preferably has a hook 29 upon its free end adapted to be engaged about one end of the bail E of the kettle. However, it is to be understood that these fastening members 20 and 21 may be shaped to fit the various types of utensils, with which they are to be connected for attaching the protector thereto.

Changes in details may be made without departing from the spirit of this invention, but;

I claim:

1. A protector for culinary utensils comprising a plurality of longitudinal wires adapted to engage the bottom of the utensil throughout substantially its entire length; a plurality of transverse wires permanently secured to said longitudinal wires and lying in the same horizontal plane and adapted to engage the said bottom throughout substantially its entire width; the ends of all of said wires being bent to engage the sides of the utensil and the whole constituting a reinforcement for said bottom and sides.

2. A protector for culinary utensils comprising a plurality of permanently connected longitudinal and transverse wires adapted to contact with the bottom of the utensil for a substantial portion of their length to reinforce the same, and having their ends bent to contact with the sides of the utensil throughout the remaining portion of their length to reinforce said sides, the whole adapted to be permanently secured to the utensil.

3. A protector for culinary utensils comprising a wire mesh permanently secured to the lower portion of the said utensil by electric welding or the like.

LEE R. KRAMER.