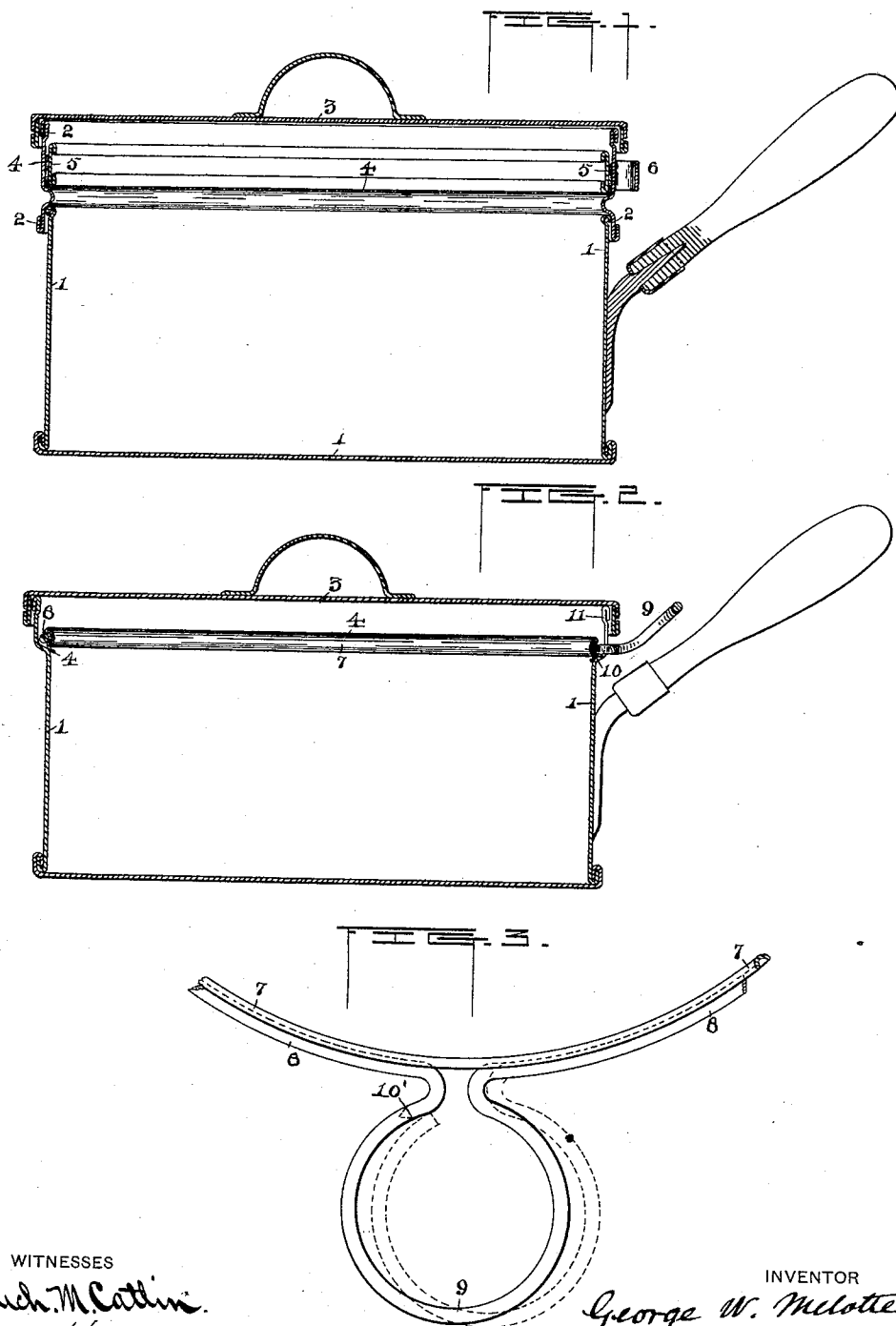


(No Model.)

G. W. MELOTTE.
STEAM RUBBER HEATER.

No. 480,472.

Patented Aug. 9, 1892.



WITNESSES

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UNITED STATES PATENT OFFICE.

GEORGE W. MELOTTE, OF ITHACA, NEW YORK.

STEAM RUBBER-HEATER.

SPECIFICATION forming part of Letters Patent No. 480,472, dated August 9, 1892.

Application filed May 7, 1892. Serial No. 432,188. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. MELOTTE, a resident of Ithaca, in the county of Tompkins and State of New York, have invented certain
5 new and useful Improvements in Steam Rubber-Heaters; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make
10 and use the same.

The invention relates to the art of forming rubber dental plates preparatory to vulcanizing, and particularly to means for suitably softening by heat the rubber strips or pieces
15 employed in building up such plates; and its object is to provide a cheap, convenient, and efficient device for this purpose that will avoid the overheating, chemical deterioration, or sticking of such rubber; and it consists in the matter hereinafter described, and particularly pointed out.

In the accompanying drawings, Figure 1 is a vertical section of a vessel with the improved device applied thereto. Fig. 2 is a
25 section, and Fig. 3 is a sectional plan, of a form of ring and handle.

Heretofore it has been customary to heat rubber pieces or strips preparatory to using them to make dental plates by laying them upon a
30 heated brick, soapstone, or metal plate—as, for example, upon the cover of a dental flask or upon the cover of a vessel for heating the flask or upon a porcelain plate over a kettle. The rubber is very apt to adhere to such objects or to be overheated, and in some cases
35 it is acted upon chemically by the metal. I have discovered that these evils are avoided by the use of a textile support for the rubber. Such material—as, for example, linen or cotton cloth—being suitably placed over or in a
40 receptacle containing water heated to 212° Fahrenheit will be kept moist and warm and will permit the free access of moisture and heat to the strips laid thereon. This would
45 be the case with perforated metal; but not to an equal degree, since the fibers of cloth will hold water of condensation.

Numeral 1 denotes a water-receptacle suitable for heating flasks.

50 2 indicates a detachable frame or ring fitting the open top of said receptacle, and 3 a

cover adapted to fit either the ring or the receptacle. These parts may in horizontal section be of oblong, round, or other contour, as desired.

4 denotes a piece of cloth or other reticulated or perforated material held in the frame 2 by an interior ring 5, which is a trifle smaller than the exterior ring and adapted to hold therein the edge of the cloth, as indicated. 60

6 denotes a handle for the frame, which may be used, if desired.

In Figs. 2 and 3 the cloth-holding rings, constituting the frame, are denoted by 7 and 8. The latter is provided with a handle 9, 65 having a joint at 10'. It is made of spring material and can be expanded, as indicated in dotted lines in Fig. 3, and is then in condition to receive in its interior concavity or groove the ring 7 and also the cloth stretched
70 over the same. The distended parts of the exterior ring being thereupon released will be automatically compressed upon the inner ring and the cloth stretched thereon. It is immaterial whether the inner or outer ring 75 be jointed or broken, so as to act as a spring, and either ring may be grooved to receive the other.

In Fig. 2 is shown a vessel having the upper edge of its open mouth slightly flared, as
80 by a bead 10, to receive the ring 8. This edge may be bent down or cut away, as indicated at 11, to receive the handle, and the cover 3 may be similarly formed with a bead and an indentation to fit upon the ring and handle, 85 or the handle may be bent down, as shown, to avoid the edge of the cover. The device made substantially as described can, if desired, be used without the particular receptacle, as it is adapted to be laid upon any
90 vessel.

I am aware that perforated diaphragms and strainers have been provided for various cooking-vessels, and I do not broadly claim such devices.

95 It is characteristic of my improvement that a perforated diaphragm is strained or stretched upon a removable ring adapted to fit the top of a water-vessel in such manner as to provide a level horizontal perforated
100 support of textile fabric at such top and immediately below the cover.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. For use in heating rubber over a water-
5 vessel, a frame provided with a horizontal diaphragm in combination with said vessel and a cover, the frame fitting the vessel and the cover fitting the frame, the diaphragm being
10 situated at the top of the water-vessel immediately below the cover, and the vessel provided with means for supporting the frame and diaphragm in such situation, substantially as set forth.

2. In combination with a water-vessel, the
15 frame covered with a strained textile fabric, said frame consisting of exterior and interior rings adapted to embrace the fabric between them and situated at the top of the vessel, the rings and fabric filling the same horizontally
20 immediately below the cover, substantially as set forth.

3. For use in heating rubber over or in a water-vessel, a frame consisting of two rings fitting one within the other, one of said rings being made of elastic material and having an
25 open joint and a perforated or porous diaphragm held by said rings, substantially as set forth.

4. In combination, the vessel having a flared edge about its open top and a ring fitting said
30 flared edge and provided with a handle and with a reticulated diaphragm, the edge being cut away to receive the handle, substantially as set forth.

In testimony whereof I have signed this
35 specification in the presence of two subscribing witnesses.

GEORGE W. MELOTTE.

Witnesses:

WM. HAZLITT SMITH,
FRANK M. LEARY.