A. MINTZ.

COFFEE MAKING APPARATUS.

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Fig. 1.

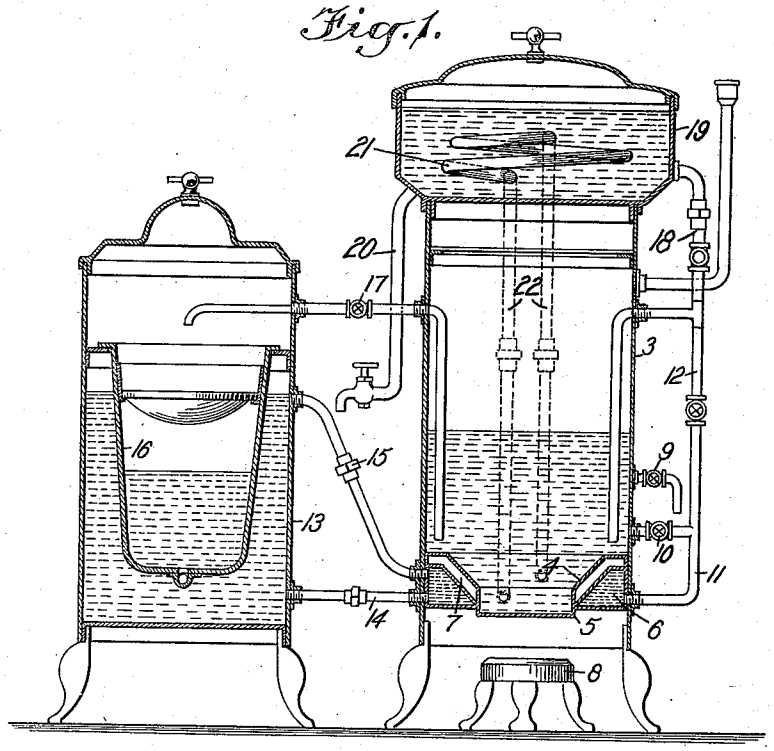
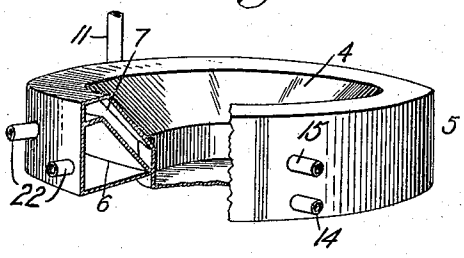


Fig. 2.



WITNESSES

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COFFEE-MAKING APPARATUS.

1,218,294. Specification of Letters Patent. Patented Mar. 6, 1917.

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To all whom it may concern:

Be it known that I, ALEX MINTZ, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Coffee-Making Apparatus, of which the following is a full, clear, and exact description.

My invention relates to a coffee-making apparatus and has reference more particularly to an apparatus wherein the coffee-pots are heated by hot water supplied from a boiler which is external to the coffee-pots and whereby economy of burners and, therefore, of fuel is obtained. The object of the invention is to provide a simple, inexpensive and efficient coffee-making apparatus in which the coffee-pots are heated by water confined in a jacket at the bottom of the boiler and which water is caused to circulate about the coffee-urns and maintain the same hot.

With the above and other objects in view, the nature of which will more fully appear as the description proceeds, the invention consists in the novel construction, combination and arrangement of parts as herein fully described, illustrated and claimed. In the accompanying drawings, forming part of the application, similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a section of a coffee-making apparatus embodying my invention, a portion of the boiler being shown in elevation; and

Fig. 2 is a perspective view, partly in section, of the unit forming the water-jacket and the insulating chamber.

Before proceeding to a more detailed description of my invention it must be clearly understood that the subject matter of this invention is an improvement over my Patent No. 1,167,199 issued January 4, 1916, and it differs therefrom by the provision of a thermoinsulating chamber between the jacket and the boiler, of means for filling the jacket with boiling water directly from the boiler, and of a pot for boiled water.

Referring to the drawings, 3 is a vertical boiler of customary construction, the bottom 4 of which is dished and forms, preferably, part of a casting 5 secured in any suitable way to the boiler. The casting 5 has an annular water-jacket 6 which is spaced from the sides of the dished bottom 4 by an annular chamber 7 which may be filled, if desired, with mineral wool or any other material which will increase the insulation. It will be noted that the water in the boiler 3 is heated in the central part of the bottom by a burner 8, the flame of which acts on the bottom of the casting and also on the jacket.

A valve-controlled conduit 9 leads to the main to supply the boiler. A valve-controlled conduit 10 is provided near the bottom of the boiler and it connects the boiler with a conduit 11 extending from the jacket and connected to a valve controlled conduit 12 adapted to supply boiling water from the boiler to said conduit 11.

The jacket 6 is connected to a coffee-pot 13 by a conduit 14 and a conduit 15 above the conduit 14. By means of the conduit 14 the coffee-pot can be filled with water from the boiler 3 through the jacket 6. The conduit 15 connects the upper portion of the coffee-pot with the jacket; and when the water in the jacket is heated, a circulation of hot water is established from the jacket through the coffee-pot and about the coffee-urn 16 within the coffee-pot. A valve-controlled conduit 17 is provided from the boiler to the urns to supply boiling water thereto from the boiler.

After filling the coffee-pot with hot water from the boiler through the jacket by means of the valve-controlled conduit 10 the same is closed, and heat supplied to the boiler is also supplied to the water-jacket. Thus, a hot-water circulation is established in the coffee-pot connected with the jacket and whereby the coffee in the urn can be maintained hot without applying heat directly to the coffee-pot as is customary. By this means only a single burner is utilized to maintain one or more coffee-pots hot. The jacket 6 at the bottom of the boiler being of comparatively small capacity it gets hot quickly and facilitates the circulation of hot water from the jacket through the coffee-pot.

It is often desirable to maintain the level of the water in the coffee-pot above that in the boiler. This would be impossible by means of the valve-controlled conduit 10, for it would only permit a common level within the pot and the boiler. Further, it is very often desirable to transfer boiling water from the boiler into the coffee-pot

without permitting the hot water from the coffee-pot to circulate in the boiler. This cannot be accomplished through the medium of the valve 10, and for that purpose the valve-controlled conduit 12 is used. When the water is boiling in the boiler 3, the valve-controlled conduit 10 being maintained closed, and the valve-controlled conduit 12 being open, the boiling water from the boiler will pass into the jacket from where it will pass into the boiler. This will not only permit the transfer of boiling water into the pot 13, but it also permits a higher liquid level in the pot than in the boiler.

The thermoinsulating chamber 7 prevents the cold water admitted into the boiler 3 through the valve controlled conduit 9 from chilling the hot water in the jacket 6 and thus cooling the coffee-pots.

The valve-controlled conduit 12 has a valve-controlled extension 18 leading to a pot 19 forming the top of the boiler 3 and to which pot boiling water is supplied from the boiler. A dispensing, valve-controlled conduit 20 is provided for the pot wherefrom the water can be drained for any purpose, as, for example, when making cocoa or tea. The boiling water in the pot is maintained hot by a hot-water coil 21 located within the pot and connected by conduits 22 to the jacket. This arrangement permits a restaurant keeper to have a reserve of hot boiling water.

When water is boiling in the pot and the valve-controlled extension 18 is open, while the valve on the conduit 12 and the valve on the conduit 10 are closed, the pressure within the boiler forces the water from the boiler into the pot; and when sufficient water has been driven into the pot from the boiler the valve to the extension 18 is closed.

The circulation through the coil 21 is due to the fact that the conduits 22 are connected to the jacket at different heights, and in view of this, there is bound to be circulation through said conduits and, therefore, through the coil.

While I have described the principle of operation, together with the apparatus which I now consider to be the best embodiment thereof, I desire to have it understood that the apparatus shown is merely illustrative and that such changes may be made as are within the scope of the appended claims.

I claim:

1. In a coffee-making apparatus, the combination of a boiler having a water-jacket at the bottom thereof, means for heating the bottom of the boiler and the jacket, a coffee-pot associated with the boiler, a conduit connecting the jacket to the bottom of the pot, a conduit connecting the pot to the jacket, a valve-controlled conduit from the jacket to the boiler to direct boiling water from the boiler into the jacket, a valve-controlled conduit connecting the bottom of the boiler to the jacket, a coffee-urn in said pot, and means for supplying water from the boiler to the urn.

2. In a coffee-making apparatus, the combination of a boiler having a water-jacket at the bottom thereof, means insulating the jacket from the bottom of the boiler, means for heating the bottom of the boiler and the jacket, a coffee-pot associated with the boiler, a conduit connecting the jacket to the bottom of the pot, a second conduit connecting the jacket to the pot above the first conduit, a valve-controlled conduit connecting the boiler to the jacket, a coffee-urn in said pot, and means for supplying water from the boiler to the urn.

3. In a coffee-making apparatus, the combination of a boiler having a water-jacket at the bottom thereof, means insulating the jacket from the bottom of the boiler, means for heating the bottom of the boiler and the jacket, a coffee-pot associated with the boiler, a conduit connecting the jacket to the bottom of the pot, a second conduit connecting the jacket to the pot adjacent the top thereof, a valve-controlled conduit connecting the boiler to the jacket to supply the jacket with boiling water from the boiler, a valve-controlled conduit connecting the jacket with the boiler at the bottom thereof, a coffee-urn in said pot, and means for supplying boiling water from the boiler to the urn.

4. In a coffee-making apparatus, the combination of a boiler having an annular water-jacket at the bottom, a chamber between the jacket and the bottom of the boiler for insulating the jacket from the boiler, means for supplying heat to the bottom of the boiler and the jacket, a valve-controlled conduit from the boiler to the jacket to supply the same with boiling water, a valve-controlled conduit from the jacket to the boiler adjacent the bottom thereof, a coffee-pot, conduits from the jacket to the coffee-pot for causing a circulation of water therethrough, a coffee-urn in the pot, and means for supplying water from the boiler to the urn.

5. In a coffee-making apparatus, the combination of a boiler having a dished bottom, a water-jacket surrounding the dished bottom, a chamber spacing the water-jacket from the bottom, means for supplying heat to the bottom of the boiler and to the jacket, a valve-controlled conduit connecting the boiler to the jacket to supply the jacket with boiling water from the boiler, a valve-controlled conduit connecting the jacket to the boiler adjacent the bottom thereof, a coffee-pot, conduits connecting the jacket to the coffee-pot to cause a circulation of water therethrough, an urn in the coffee-pot,

and means for supplying boiling water from the boiler to the urn.

6. In a coffee-making apparatus, the combination of a boiler, a water-jacket at the bottom thereof, thermoinsulating means spacing the jacket from the bottom of the boiler, means for supplying heat to the boiler and to the jacket, valve-controlled conduits establishing communication between the jacket and the boiler, a coffee-pot, conduits connecting the coffee-pot to the jacket for establishing circulation between the jacket and the pot, an urn in the pot, and means for supplying hot water from the boiler to the urn.

7. In a coffee-making apparatus, the combination of a boiler having a water-jacket at the bottom thereof, means for heating the bottom of the boiler and the jacket, a hot-water pot associated with the boiler, a hot-water coil in said pot, a conduit connecting the coil and the jacket, a valve-controlled conduit from the jacket to the boiler and from the boiler to the pot to direct boiling water from the boiler into the jacket and also into the pot, and a valve-controlled dispensing conduit from said pot.

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

ALEX MINTZ.

Witnesses:
B. JOFFE,
PHILIP D. ROLLHAUS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."