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W. F. BADBERG

2,050,148

CREAM FILTER AND COOLER

Filed Jan. 29, 1935

Fig. 1.

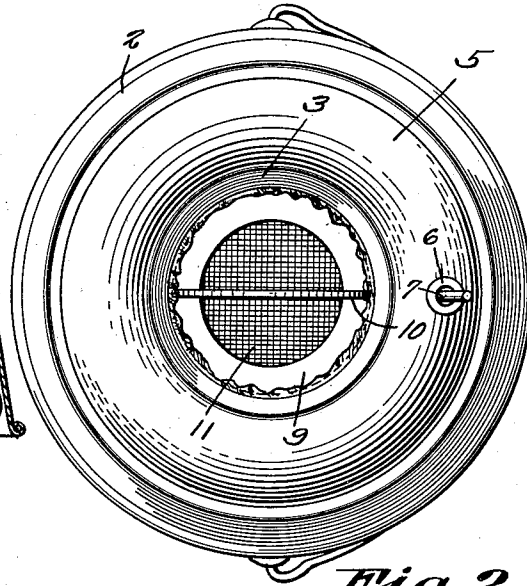
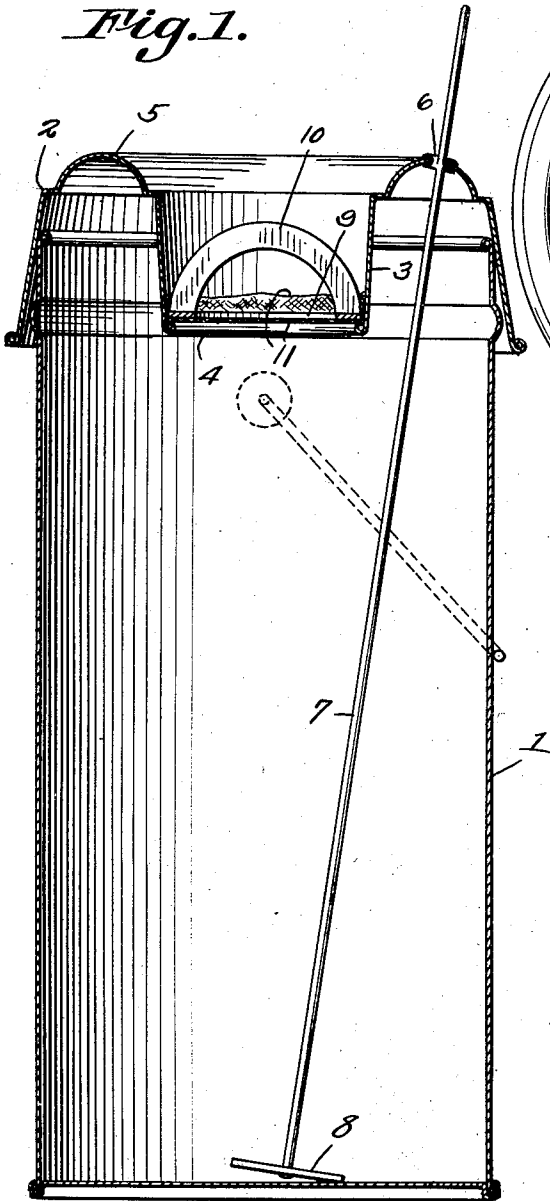


Fig. 2.

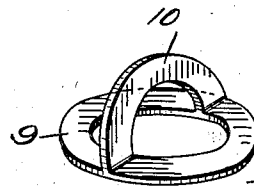


Fig. 3.

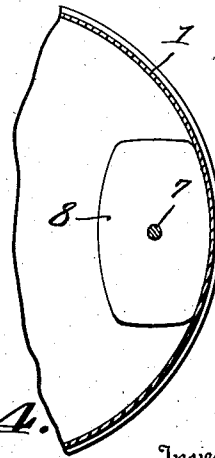


Fig. 4.

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UNITED STATES PATENT OFFICE

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CREAM FILTER AND COOLER

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Application January 29, 1935, Serial No. 3,994

1 Claim. (Cl. 210—151)

This invention relates to a device for filtering and cooling cream, one of the objects being to provide a simple and efficient device of this character which will not only filter the cream as it is poured therinto but will also fully protect the cream while it is being agitated in the device for the purpose of cooling it.

It is a further object of the invention to provide a filter of simple and efficient construction, the filtering cloth being easily placed in and removed from position and being held securely while in place.

With the foregoing and other objects in view which will appear as the description proceeds, the invention consists of certain novel details of construction and combinations of parts hereinafter more fully described and pointed out in the claim, it being understood that changes may be made in the construction and arrangement of parts without departing from the spirit of the invention as claimed.

In the accompanying drawing the preferred form of the invention has been shown.

In said drawing

Figure 1 is a vertical section through the combined filter and cooler.

Figure 2 is a plan view thereof.

Figure 3 is a perspective view of the holding ring of the filter.

Figure 4 is a transverse section through a portion of the container showing the agitator blade in position against the wall for scraping it.

Referring to the figures by characters of reference, 1 designates a cylindrical container of any suitable capacity and preferably formed of a material which will conduct heat readily. This container is provided with a downwardly flared cap or lid 2 adapted to be pressed downwardly onto the upper open end of the container so as to bind thereupon and form a tight connection between the two parts.

The center of the cap is formed with a depending sleeve 3 open at the bottom and top. The lower end of the sleeve is turned inwardly to provide a supporting ledge or shoulder 4. This sleeve is tapered downwardly toward the shoulder as shown.

That portion of the cap or closure surrounding the sleeve 3 can be in the form of a circular upstanding concavo-convex bead 5 cooperating with the sleeve to act as a funnel whereby fluid can be directed easily toward the outlet at the bottom of the sleeve 3. A small opening 6 can be provided in this bead for the reception of an elongated rod 7 having a scraper blade 8 secured to one end. As shown in Figure 4 the opposed edges of this blade can be curved so that each will conform to the interior curvature of the wall of container 1.

The filter includes a ring 9 having an integral

bail 10 bridging it. The external diameter of the ring is substantially equal to the internal diameter of sleeve 3 at the top of shoulder 4. The bottom surface of this ring is adapted to be covered with a piece of filtering gauze indicated at 11 and the edge portions of this gauze are adapted to extend beyond the edge of the ring.

It will be apparent that after a piece of filtering material has been applied to the ring, said ring can be forced downwardly within sleeve 3 so as to bind the edge portions of the filtering material against the wall of the sleeve and upon shoulder 4. Rod 7 is inserted through the opening 6 with blade 8 positioned within container 1 and the cover 2 is then pressed downwardly onto the container so that the parts will assume the positions shown in Figure 1. The cream or other liquid to be filtered is then poured into the cover and will flow through the filtering material into container 1. During or subsequent to this operation the liquid in the container can be agitated by means of blade 8 and rod 7 without danger of any foreign substances entering the container. Thus the cream will be quickly cooled especially if the container 1 is first placed in a body of cold water.

Following the filtering and cooling of the liquid as described the cover can be removed and the liquid poured from the container. Should any of the cream or other liquid adhere to the inner surface of the container the blade 8 could be used as a scraper to clean the surface of the container as will be apparent by referring to Figure 4. Importance is attached to the fact that the capacity of the container is not reduced when the present improvements are used in connection therewith. It will of course be understood that the cover can be either wedged upon the container as shown or else extended into it, as will be obvious.

What is claimed is:

A device for cooling cream including a cylindrical container formed of a material for quickly conducting heat, a flared cover adapted to be wedged thereon to exclude foreign substances, said cover having a central, downwardly tapered, depending sleeve open at its ends, a filter in the sleeve, there being an aperture in the highest portion of the cover at one side of the sleeve, a rod extending loosely through the aperture, and a flat imperforate blade at one end of the rod having opposed scraping edges curved to conform with the curvature of the container wall, said rod constituting means for sliding the blade along the wall and for oscillating it in the container while the cover is in place, and stripping cream from the container wall when the cover is removed.

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