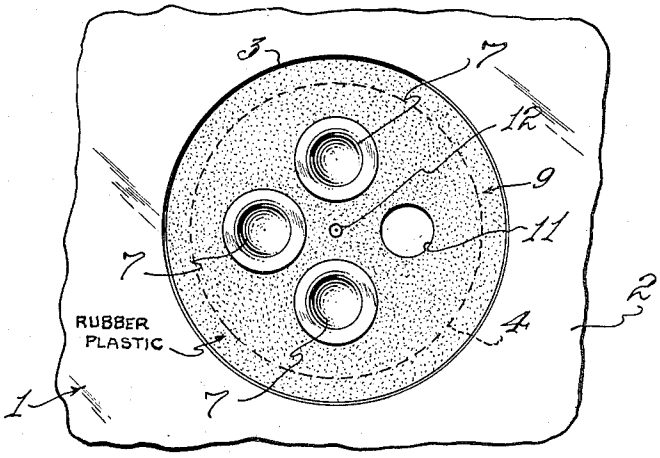
Feb. 14, 1956 P. LAWLER, JR 2,734,345

SAMPLE SUPPORT FOR REFRIGERATING CABINETS

Filed June 5, 1953

Fig. 1



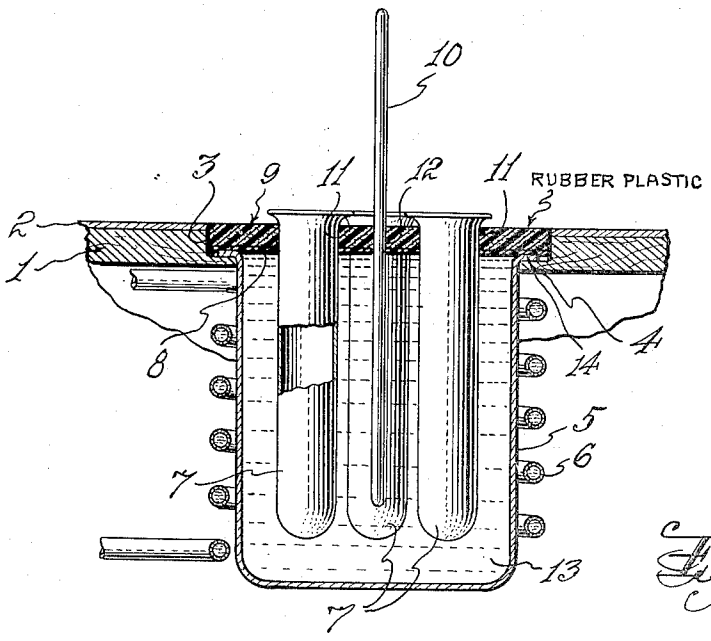


Fig. 2

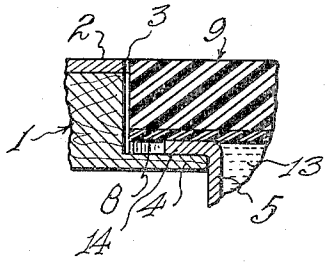


Fig. 3

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SAMPLE SUPPORT FOR REFRIGERATING CABINETS

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1 Claim. (Cl. 62—1)

This invention deals with an insulating container support for samples subjected to bottom refrigeration, and used particularly for oil samples refrigerated for pour and cloud determinations.

Prior to the invention to be described herein, refrigerator units for cooling oil samples were provided with rectangular openings into which the samples were placed to be cooled. These openings were covered (except for sample openings) with a permanent covering of sheet cellulosic insulating material (such as Celotex), said sheet having openings into which the samples could be inserted. A metal jacket was used, covering all but the sample openings in such cabinets. One difficulty with such conventional cabinets is that the cellulosic insulation becomes buckled or distorted through becoming wetted by the refrigerating bath liquid. Also, since only the small openings for samples are the only openings available, it is impossible to use the cooled space for storage of larger samples. Other disadvantages also are present as will be pointed out in the subsequent discussion.

In the refrigerator cabinet of the present invention, there are provided large, round openings allowing access to the entire upper refrigerated area. These openings are covered, first by a thin hard, rigid plastic sheet (provided with smaller openings allowing insertion therein of sample containers), and secondly, the rigid plastic sheet is covered by a soft, flexible, sponge-type porous plastic sheet having smaller openings registering with those in the rigid sheet.

The invention will be more readily understood by reference to the accompanying drawing in which Figure 1 depicts a top or plan view of a portion of the cabinet top showing a preferred embodiment of a covered refrigerated bath. Figure 2 is a cross-sectional side view of the unit illustrated in Figure 1, while Figure 3 is an enlarged cross-sectional view of a portion of the cover section showing details thereof. Similar numerals refer to similar parts in the various views.

Referring again to the drawing, numeral 1 represents a

cabinet top of wood or other material covered with a sheet 2 of hard, corrosion resistant plastic, such as phenol-formaldehyde resin laminate. Top 1 and sheet 2 are provided with at least one circular opening 3. Lip or edge 4 from the bottom portion of top 1 projects into opening 3 and serves as a holding means for refrigerated metal beaker 5 the upper lip 14 of which rests on projecting edge 4 of top 1. Coil 6 disposed around the beaker 5 serves as a means for containing the refrigerating medium (preferably a liquefiable gas) employed for cooling the beaker which is filled with bath liquid 13, such as acetone, for extracting the heat from petroleum or other samples inserted in metal tubes 7.

Fitting loosely in opening 3, and covering the opening, is a thin, hard plastic sheet 8 preferably made of rigid plastic such as polyvinyl chloride, phenol-formaldehyde plastic, or the like. Over this sheet is superimposed a thicker sheet 9 of sponge plastic, such as sponge rubber, which also fits loosely in opening 3. Both sheets have openings 11 in register with each other, to allow insertion therethrough of tubes 7 in which the samples are cooled. A small central opening 12 is provided in both sheets for introduction therethrough and support of a thermometer 10 for indicating the bath temperature.

The sponge plastic bath cover 9 may be of rubber, polychlorprene, polyvinyl chloride, butyl rubber, and the like and preferably is flexible and absorbent. It has been found that when liquid is spilled on a cover of this type, the cover may be readily removed and squeezed dry without much difficulty. The bath then can be readily drained, if desired, and the dry compartment used as a storage space for samples, chemicals, etc., when not used for cooling test samples.

I claim:

In a cabinet for refrigerating test samples and having at least one opening in the top in which is suspended a container holding the refrigerating bath in which the samples are immersed for cooling, the improvement comprising a thin, removable rigid sheet of hard plastic covering said container, a thicker, removable sheet of flexible, liquid absorbent sponge plastic superimposed over the first sheet, and means forming holes disposed in register through both sheets, into which the samples are inserted for refrigeration in the bath.

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